

IN THE  
**United States Court of Appeals**  
**FOR THE ELEVENTH CIRCUIT**

IRA KLEIMAN, as the Personal Representative  
of the ESTATE OF DAVID KLEIMAN,  
*Plaintiff-Appellant,*  
W&K INFO DEFENSE RESEARCH, LLC,  
*Plaintiff,*  
—v.—

CRAIG WRIGHT,  
*Defendant-Appellee.*

ON APPEAL FROM THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF FLORIDA

**SUPPLEMENTAL APPENDIX**  
**VOLUME XIII OF XVII**

ANDREW S. BRENNER  
LASELVE ELIJAH HARRISON  
ALEXANDER J. HOLTZMAN  
SAMANTHA MARIE LICATA  
MAXWELL PRITT  
STEPHEN NEAL ZACK  
BOIES SCHILLER FLEXNER LLP  
100 SE Second Street, Suite 2800  
Miami, Florida 33131  
(305) 539-8400

DEVIN FREEDMAN  
FREEDMAN NORMAND  
FRIEDLAND, LLP  
1 SE Third Avenue, Suite 1240  
Miami, Florida 33131  
(305) 306-9211

—and—

KYLE ROCHE  
STEPHEN LAGOS  
ROCHE FREEDMAN LLC  
99 Park Avenue, Suite 1910  
New York, New York 10016  
(646) 350-0527  
jcyrulnik@rcflp.com  
*Attorneys for Plaintiff-Appellant*

ANDRÉS RIVERO  
JORGE A. MESTRE  
AMANDA MCGOVERN  
ALAN H. ROLNICK  
ROBERT J. KUNTZ JR.  
ALLISON HENRY  
RIVERO MESTRE LLP  
2525 Ponce de León Boulevard, Suite 1000  
Miami, Florida 33134  
Telephone: (305) 445-2500  
Facsimile: (305) 445-2505  
arivero@riveromestre.com  
jmestre@riveromesre.com  
amcgovern@riveromestre.com  
arolnick@riveromestre.com  
rkuntz@riveromestre.com  
ahenry@riveromestre.com

MICHAEL A. FERNÁNDEZ  
AMY C. BROWN  
RIVERO MESTRE LLP  
565 Fifth Avenue, 7th Floor  
New York, New York 10017  
Telephone: (212) 880-9451  
Facsimile: (212) 504-9522  
mfernandez@riveromestre.com  
abrown@riveromestre.com  
*Attorneys for Defendant-Appellee*

**TABLE OF CONTENTS**

TAB NO.	DESCRIPTION
210	Plaintiffs' Motion to Compel Defendant to Comply with this Court's Orders Directing Him to Produce a List of the Bitcoins He Held as of December 31, 2013
429	Order Granting in Part and Denying in Part Plaintiffs' Corrected Motion for Attorneys' Fees (DE 346), filed March 17, 2020
618	Joint Proposed Jury Instructions, filed September 29, 2020
802-1	Exhibit A to Defendant's Opposition to Motion for a New Trial (DE 861) — Final Jury Instruction Objections
829	Email from Craig S. Wright to Dave Kleiman, dated March 12, 2008
837	Trial Transcript Day 1, dated November 1, 2021
838	Trial Transcript Day 2, dated November 2, 2021
839	Trial Transcript Day 3, dated November 3, 2021
840	Trial Transcript Day 4, dated November 4, 2021
841	Trial Transcript Day 5, dated November 5, 2021
842	Trial Transcript Day 6, dated November 8, 2021
843	Trial Transcript Day 7, dated November 9, 2021
845	Trial Transcript Day 9, dated November 15, 2021

TAB NO.	DESCRIPTION
846	Trial Transcript Day 10, dated November 16, 2021
847	Trial Transcript Day 11, dated November 17, 2021
848	Trial Transcript Day 12, dated November 18, 2021
848	Trial Transcript Day 12, dated November 18, 2021
850	Trial Transcript Day 14, dated November 22, 2021
851	Trial Transcript Day 15, dated November 23, 2021
861	Law360 Article entitled, “No Proof Bitcoin ‘Inventor’ Owed Friend, Juror Tells Law360”
877	Joint Notice and Request for Judicial Ruling on Proposed Redactions to Admitted Trial Exhibits, filed January 31, 2022

**846**

1 number six through 10. Do you remember those questions?

2 A. I do.

3 Q. Have you reviewed any evidence in this case suggesting it  
4 was anyone but Craig Wright who created forgeries number one  
5 through ten?

6 A. I have not.

7 Q. And are you aware of whether or not the Defendant has any  
8 experts in this case who will opine that it was somebody else  
9 who created forgeries number through 10?

10 MR. RIVERO: Objection, Judge.

11 THE COURT: Sustained.

12 MR. RIVERO: Excuse me, Your Honor. It's that moment  
13 when the sun starts to hit us.

14 Thank you.

15 MR. ROCHE: Thank you.

16 Dorian, can we go to Dr. Edman's -- the presentations  
17 856.1 and 856.2. It's around forgeries six and seven.

18 (Pause in proceedings.)

19 MR. ROCHE: I don't think that's 856.1 on the left.

20 (Pause in proceedings.)

21 MR. ROCHE: Yes.

22 BY MR. ROCHE:

23 Q. Dr. Edman, I believe we were looking at 856.2 during your  
24 cross-examination by Mr. Rivero. Can you remind the jury the  
25 relationship between 856.1 and 856.2?

1 A. 856.2 shows a GeoIP lookup for the IP address associated  
2 with the originating IP in 856.1, which is line 51 in the  
3 document on the left.

4 Q. Okay. I believe you were asked what date that this GeoIP  
5 Precision lookup relates to. Can you remind the jury when you  
6 pulled this information?

7 A. This would have been in mid-2019.

8 Q. Okay. So this corresponds to the location related to that  
9 IP address in 2019?

10 A. It does.

11 Q. Did you check to see whether that IP -- what location that  
12 IP address was related to in 2014?

13 A. I did.

14 Q. What location was it?

15 A. It was still consistent with Eastern Australia.

16 MR. ROCHE: Your Honor, we'd like to play a clip from  
17 the Defendant's deposition.

18 Do you have that ready? If we could play that clip.

19 MR. RIVERO: Your Honor --

20 THE COURT: Hold on. Hold on. Hold on. Is there an  
21 objection?

22 MR. RIVERO: Yes, there's an objection, Judge. We're  
23 on a redirect of an expert. We didn't show any Dr. Wright  
24 examination. I'm not sure how this could possibly bear on the  
25 scope.

1 THE COURT: What's the relationship?

2 MR. ROCHE: The relationship is they called into  
3 question whether or not Dr. Wright had any relationship between  
4 this geographic location.

5 THE COURT: All right. All right. The objection is  
6 overruled. I'll allow it.

7 MR. ROCHE: Please play the clip.

8 (Video played.)

9 MR. ROCHE: And if we can go back to 586.2 or 856.2.

10 Thank you.

11 BY MR. ROCHE:

12 Q. Dr. Edman, are you aware that Brisbane, Australia, is less  
13 than four miles away from Woolloowin, Australia?

14 MR. RIVERO: Objection, Your Honor. It's leading,  
15 although I'll stipulate that Woolloowin is a suburb of Brisbane.

16 THE COURT: You want to accept that stipulation?

17 MR. ROCHE: That works for me.

18 THE COURT: All right. Then let's continue.

19 BY MR. ROCHE:

20 Q. Are you aware that the Defendant's mother lives in  
21 Brisbane, Australia, which we've just stipulated is less than  
22 four miles away from Woolloowin, Australia?

23 A. I am not.

24 Q. And can you remind the jury which forgery the IP address in  
25 856.2 is related to?

1 A. I don't recall exactly which forgery number this is. I  
2 would need to see the email.

3 MR. ROCHE: Okay. Can we pull up -- let me look this  
4 up.

5 (Pause in proceedings.)

6 BY MR. ROCHE:

7 Q. Does this refresh your recollection or do you need to see  
8 856 itself?

9 A. No. I believe the mail transport headers on the left are  
10 from forgery number six.

11 Q. Forgery number six.

12 Are you aware whether or not the Defendant has relied on  
13 forgery number six, the authenticity of forgery number six?

14 A. I understand that he has.

15 Q. Okay. So the Defendant himself has relied on the  
16 authenticity of forgery number six, which is an email from Dave  
17 Kleiman to Uyen Nguyen?

18 MR. RIVERO: Objection. Asked and answered. Leading.

19 THE COURT: Sustained.

20 BY MR. ROCHE:

21 Q. Dr. Edman, do you understand that the Defendant is  
22 asserting it wasn't him who created -- it was somebody else who  
23 created forgeries one through 10?

24 A. I understand that's been suggested.

25 Q. And were you here when Dr. Wright testified that in April



1 2014 his email servers were rebuilt?

2 A. I recall that, yes.

3 Q. And were you here when he testified that it was this server  
4 change that would explain the date manipulation in the  
5 documents you analyzed?

6 A. I was.

7 Q. And so that April 2014, that's roughly around the time of  
8 forgery six, but after -- so we'll just draw a line here for  
9 when the Defendant says his email servers changed. So  
10 forgeries one through five all happened before the emails were  
11 changed.

12 A. That is my understanding.

13 Q. Okay. And let's look at --

14 MR. ROCHE: If we can pull up P36, please.

15 BY MR. ROCHE:

16 Q. So for the email -- for the forgeries that occurred after,  
17 Dr. Edman, has the Defendant sworn to the authenticity of P36?

18 A. I understand that he has.

19 Q. Okay.

20 MR. ROCHE: Let's go to P35, please, forgery number  
21 eight.

22 Can the jury --

23 BY MR. ROCHE:

24 Q. Has the Defendant sworn to the authenticity of P35, forgery  
25 number eight?

1 A. I understand that he has.

2 Q. And can you remind the jury the relationship between  
3 forgery eight and nine?

4 A. They are derived from the same document. They are  
5 variations on the same document.

6 Q. Okay. And for forgery number six and forgery number seven,  
7 has the Defendant relied on the authenticity of those  
8 documents?

9 MR. RIVERO: Objection Judge. This witness is not  
10 here to --

11 THE COURT: Sustained.

12 MR. ROCHE: Dorian, if we could pull up Plaintiffs'  
13 Exhibit 117, and if we could blow up the forwarded message.  
14 Or -- excuse me -- from the bottom.

15 BY MR. ROCHE:

16 Q. Dr. Edman, were you here when this exhibit was shown during  
17 the testimony of Craig Wright?

18 A. I believe so, yes.

19 Q. And can you read for the jury the date of this email.

20 MR. RIVERO: Objection, Your Honor. This is beyond  
21 the scope of the cross. We didn't show Plaintiffs' 117 to  
22 Mr. Edman. It's just not the subject of the cross.

23 MR. ROCHE: Your Honor --

24 THE COURT: That's correct. The objection is  
25 sustained. It's redirect.

1 BY MR. ROCHE:

2 Q. Dr. Edman, what is the significance of the timing between  
3 forgery one and forgery number five?

4 MR. RIVERO: Objection, Your Honor.

5 MR. ROCHE: Your Honor, this goes to the -- during the  
6 cross-examination of Dr. Edman there was suggestions that it  
7 was somebody else who created --

8 THE COURT: The objection is overruled. I'll allow  
9 it.

10 You're permitted to respond, sir.

11 THE WITNESS: They appear to have been created on the  
12 same day.

13 BY MR. ROCHE:

14 Q. Okay. And shortly after the email was sent by Craig Wright  
15 to Louis Kleiman -- shortly before?

16 MR. RIVERO: Objection, Your Honor.

17 MR. ROCHE: That's already in the record.

18 MR. RIVERO: There was a ruling about the very subject  
19 that's being asked about again.

20 MR. ROCHE: Your Honor, during cross-examination  
21 Mr. Rivero questioned Dr. Edman on whether or not he considered  
22 the motive of other people.

23 THE COURT: The objection is sustained.

24 MR. ROCHE: No further questions.

25 THE COURT: All right. Ladies and Gentlemen, you have

1 the opportunity to ask Dr. Edman questions. If you'll just  
2 raise your right hand so I know that you're formulating a  
3 written question.

4 Is there anyone else that has a question for  
5 Dr. Edman? I would ask the court security officer if you can  
6 provide the question directly to me, please.

7 Let me have the attorneys sidebar.

8 (At sidebar on the record.)

9 THE COURT: Okay. All right. There is one question,  
10 and it reads as follows: "If you change the time in the  
11 computer, will the IP change too?"

12 Is there any objection?

13 MR. ROCHE: No objection.

14 MR. RIVERO: No objection. No objection, Judge.

15 (End of discussion at sidebar.)

16 THE COURT: All right.

17 Let me thank the jury for the question. The question  
18 is proper.

19 Dr. Edman, I'll read the question to you. It reads as  
20 follows: "If you change the time in the computer, will the IP  
21 change too?"

22 THE WITNESS: No, not necessarily. It's unlikely.

23 THE COURT: Are there any additional questions for  
24 Dr. Edman?

25 All right. Is there any follow-up by the attorneys

1 regarding this question?

2 On behalf of the Plaintiffs.

3 MR. FREEDMAN: No further questions, Your Honor.

4 THE COURT: On behalf of the Defendant.

5 MR. RIVERO: No, Your Honor.

6 THE COURT: All right. Is Dr. Edman excused.

7 MR. ROCHE: Yes, Your Honor.

8 MR. RIVERO: Yes, Your Honor.

9 THE COURT: All right. Thank you, Dr. Edman. You are  
10 excused.

11 (Witness excused.)

12 THE COURT: And the Plaintiffs' next witness, please.

13 MR. FREEDMAN: Your Honor, at this point, subject to  
14 our confirming the exhibits, the Plaintiffs rest.

15 THE COURT: All right, then.

16 Ladies and Gentlemen, the Plaintiffs have rested their  
17 case. We will now proceed with the Defendant's case.

18 On behalf of the Defendant.

19 MR. RIVERO: Your Honor, as discussed previously, we  
20 would have a motion to present, but I understand that we could  
21 take that up at another time.

22 And I would then turn the microphone over to Mr. Kass  
23 for our first witness.

24 THE COURT: All right. Certainly.

25 MR. KASS: Your Honor, we're going to be calling Kevin

1       Madura.

2               THE COURT: All right. Good afternoon, sir.

3               All right, sir. If you'll remain standing. Raise  
4 your right hand to be placed under oath.

5               KEVIN MADURA, DEFENSE WITNESS, SWORN

6               COURTROOM DEPUTY: Thank you.

7               Have a seat.

8               Can you please state your name and also spell it for  
9 the record.

10              THE WITNESS: Kevin Madura, M-A-D-U-R-A.

11                                      DIRECT EXAMINATION

12       BY MR. KASS:

13       Q. Mr. Madura, are you here today to provide expert testimony?

14       A. I am.

15       Q. And what's the subject matter of your expert testimony?

16       A. I'm here to testify about and inform the jury about the  
17 history of Bitcoin, its underlying technology, specifically  
18 computer programming.

19              MR. RIVERO: And, Judge, to be even-handed, I have  
20 trouble hearing Mr. Madura too.

21              THE COURT: If each of you will speak up. Thank you.

22       BY MR. KASS:

23       Q. Mr. Madura, are you here to provide an opinion as to  
24 whether there was any sort of partnership between Dave Kleiman  
25 and Dr. Craig Wright?

1 A. I'm not.

2 Q. Are you here to provide an opinion as to the identity of  
3 Satoshi?

4 A. I'm not.

5 Q. Are you being compensated for your work as an expert  
6 witness?

7 A. My firm is being compensated, but I just receive a regular  
8 salary from the firm.

9 Q. And what's the name of your firm?

10 A. It's called AlixPartners. A-L-I-X.

11 Q. Do you know how much AlixPartners is being compensated for  
12 your work as an expert?

13 A. \$665 per hour.

14 Q. Mr. Madura, could you please tell the jury a little bit  
15 about your educational background.

16 A. Yes. I received my bachelor's of science in computer  
17 science from the University of Maryland. I then went to the  
18 University of Georgetown, earning a master's degree in  
19 technology management.

20 Q. Mr. Madura, could you now tell the jury a little bit about  
21 your work experience.

22 A. I started at IBM in their federal consulting practice where  
23 I was a cybersecurity expert, coding, operating and maintaining  
24 cybersecurity and technology systems for the federal  
25 government. I also developed and designed blockchain-based

1 technologies for various government agencies looking to explore  
2 the use of blockchain technology in their operations.

3 Q. Mr. Madura, after working for IBM, did you go to work at a  
4 different company?

5 A. I did. I then moved to AlixPartners, where I'm at today.

6 Q. What is your role at AlixPartners today?

7 A. I'm part of the global cybersecurity practice. In that  
8 practice we're hired by companies and investors, essentially,  
9 to assist companies in improving their cybersecurity systems.  
10 We're also engaged by law firms for forensic matters and our  
11 expertise in technical subjects, including the Bitcoin  
12 blockchain.

13 Q. In either of those two jobs, IBM or AlixPartners, did you  
14 review any computer code?

15 A. Yes. I both reviewed and developed code both at IBM and at  
16 AlixPartners. I also regularly interview engineers and  
17 engineering management as part of my job at AlixPartners.

18 Q. Are you familiar with Bitcoin?

19 A. I am, yes.

20 Q. Since when did you first become familiar with Bitcoin?

21 A. I first heard of Bitcoin in 2012 while I was at the  
22 University of Maryland. It's been a subject of both personal  
23 and professional study since then.

24 Q. Is the Bitcoin blockchain similar to the Bitcoin that  
25 you -- similar to the blockchain that you worked on at IBM?



1 A. Yes. The structure of the programs and the technology that  
2 I was using at IBM was informed by the way Bitcoin works,  
3 essentially.

4 Q. Mr. Madura, could you explain to the jury what the main  
5 components of the Bitcoin blockchain are.

6 A. Sure. So when you think of Bitcoin, you can think of four  
7 major concepts. One is the Bitcoin Whitepaper, which outlays  
8 the various kind of theoretical concepts that describe how the  
9 system is supposed to work. There's also the Bitcoin software,  
10 which is the actual code, the actual program that everybody  
11 runs on their computers to interact and participate in the  
12 network. That's actually what you're running on your computer.  
13 There's also what we all know of as the Bitcoin currency, which  
14 is the actual value that's being transferred on the Bitcoin  
15 network. Then there's also the concept of mining, which is  
16 very important in the Bitcoin network. These are participants  
17 essentially that collect and validate transactions and provide  
18 a critical function to the network.

19 Q. Could the Bitcoin blockchain exist without miners?

20 A. No.

21 MR. FREEDMAN: Objection, Your Honor. Outside the  
22 scope of the disclosed expert report.

23 THE COURT: At this point, the objection would be  
24 overruled.

25 You may continue.

1 THE WITNESS: It's a fundamental component of how the  
2 Bitcoin system works, so no.

3 BY MR. KASS:

4 Q. Can you explain to the jury what are the disciplines that  
5 are central to the invention of the Bitcoin blockchain?

6 MR. FREEDMAN: The same objection, Your Honor.

7 THE COURT: Mr. Kass, is this included within  
8 Mr. Madura's report?

9 MR. KASS: Your Honor, Mr. Madura is a rebuttal expert  
10 of Mr. Antonopoulos. He talks --

11 THE COURT: Was this included in his report?

12 MR. KASS: Yes, it was. The general area, yes.

13 THE COURT: All right. Well, Mr. Kass has made a  
14 representation. The Court will accept it. The objection is  
15 overruled at this point.

16 THE WITNESS: Yes. It incorporates concepts from a  
17 variety of fields, computer science being the main one, of deep  
18 understanding of programming languages and how computers  
19 interact with each other, but also incorporates ideas from,  
20 say, game theory and statistics and accounting.

21 BY MR. KASS:

22 Q. How does the Bitcoin blockchain incorporate game theory?

23 A. So game theory really informs how the miners interact.

24 MR. FREEDMAN: Same objection, Your Honor. If I could  
25 get a paragraph cite, I would stop making the objection.

1 THE COURT: Yes. Mr. Kass, it would be helpful with  
2 regard to this game theory if you can just perhaps let the  
3 Court know where within the report this is.

4 MR. KASS: Your Honor, I don't have a paragraph cite  
5 but I can move on and deal with it and address it later, if  
6 that's all right.

7 THE COURT: All right.

8 BY MR. KASS:

9 Q. Mr. Madura, I'd like to move on to transacting on the  
10 Bitcoin blockchain.

11 How does someone transact on the Bitcoin blockchain?

12 MR. FREEDMAN: Same objection, Your Honor.

13 MR. KASS: Can we have a sidebar?

14 THE COURT: Why don't you give me the exhibit number  
15 so the Court can review it at this point. I think the exhibit  
16 number or the ECF number and I can do a search myself.

17 (Pause in proceedings.)

18 MR. KASS: Your Honor, while we're working on that,  
19 I'll move on.

20 THE COURT: All right.

21 BY MR. KASS:

22 Q. Mr. Madura, I'd like to go through a timeline of the  
23 development and release of Bitcoin.

24 Do you know when Satoshi first started working on the  
25 Bitcoin blockchain?

1 A. 2007 was when Satoshi mentioned that coding began.

2 Q. Mr. Madura, how do you know that?

3 A. Based on public communications from Satoshi Nakamoto. He  
4 essentially communicated that code had begun around that time.

5 MR. KASS: Mr. Shah, could you pull up Defendant's  
6 Exhibit 398. I believe it's already in evidence. And if you  
7 could publish it to the jury.

8 THE COURT: It is in evidence.

9 MR. KASS: And, Mr. Shah, if you could go to the  
10 second page. I'm sorry, the third page.

11 BY MR. KASS:

12 Q. Okay. And, Mr. Madura, do you see where it says: "I  
13 appreciate your questions"?

14 A. I do.

15 Q. Could you read the rest of that sentence and that line and  
16 the second line to the jury.

17 A. "I actually did this kind of backwards. I had to write all  
18 the code before I could convince myself that I could solve  
19 every problem. Then I wrote the paper."

20 Q. Mr. Madura, what does this tell you about Satoshi's process  
21 in developing the Bitcoin blockchain?

22 A. Based on this it would appear that the coding began before  
23 the writing of the actual whitepaper.

24 MR. KASS: Mr. Shah, could you pull up Defendant's  
25 Exhibit 383 and only show it to the witness, counsel and the

1 Judge.

2 BY MR. KASS:

3 Q. Mr. Madura, do you recognize this document?

4 A. I do.

5 Q. What do you recognize it to be?

6 A. It's an archived communication from Satoshi Nakamoto.

7 Q. Do you recognize it to be an authentic email?

8 A. I do. I have compared the contents. Yes.

9 MR. KASS: Your Honor, I'd like to introduce  
10 Defendant's Exhibit D383 into evidence.

11 MR. FREEDMAN: Objection, Your Honor. Foundation.

12 THE COURT: What is the purpose of introducing it?

13 MR. KASS: We're using it to establish the date when  
14 Satoshi started coding the Bitcoin software.

15 THE COURT: All right. Then let's lay the appropriate  
16 foundation.

17 The objection is sustained.

18 MR. KASS: Okay.

19 BY MR. KASS:

20 Q. Mr. Madura, do you recognize this communication?

21 A. I do, yes.

22 Q. What do you recognize it to be, without divulging the  
23 contents of the communication?

24 A. So this communication is one of the better-known  
25 communications from Satoshi in communicating with others in the

1 cryptographic community.

2 Q. And does this exhibit contain communications written by  
3 Satoshi?

4 A. It does, yes.

5 MR. KASS: Your Honor, I'd like to move Exhibit D383  
6 into evidence.

7 THE COURT: You're introducing it for its truth,  
8 correct?

9 MR. KASS: Yes.

10 THE COURT: Sustained.

11 BY MR. KASS:

12 Q. Mr. Madura, in this communication, does Satoshi give any --

13 MR. KASS: Mr. Shah, you can take down the exhibit.

14 BY MR. KASS:

15 Q. Mr. Madura, have you reviewed a number of communications by  
16 Satoshi?

17 A. I have, yes.

18 Q. And has Satoshi stated when he started working on the  
19 coding on the Bitcoin blockchain?

20 A. Yes.

21 Q. And what date did he say he started coding?

22 A. I don't recall an exact date, but 2007 was when Satoshi  
23 mentioned they had started the development of the code.

24 MR. KASS: Your Honor, I'd like to know if Mr. Madura  
25 could come off the stand to help put together a timeline.

1 We'll use one of the boards.

2 THE COURT: Certainly.

3 (Pause in proceedings.)

4 BY MR. KASS:

5 Q. Mr. Madura, using 2007 as the first datapoint, can you  
6 start a timeline as to the development of the Bitcoin  
7 blockchain.

8 MR. FREEDMAN: Your Honor, objection. There isn't a  
9 proper foundation for the factual testimony that's being  
10 offered through Mr. Madura.

11 THE COURT: Do you want to lay the foundation for the  
12 information that he's going to be providing?

13 MR. KASS: Sure.

14 BY MR. KASS:

15 Q. Mr. Madura, did you review communications by Satoshi  
16 Nakamoto?

17 A. I did, yes.

18 Q. And are these public communications?

19 A. They are, yes.

20 Q. That Satoshi -- and are the sources of the communications a  
21 reliable source?

22 A. They are widely accepted in the community as legitimate  
23 Satoshi Nakamoto communications, yes.

24 Q. And in those communications does Satoshi state when he  
25 started working on the Bitcoin blockchain software?

1 A. Yes.

2 Q. And what date was that?

3 A. It was 2007.

4 MR. FREEDMAN: Same objection, Your Honor.

5 THE COURT: What is this information based upon?

6 MR. KASS: Your Honor, it's based on the public  
7 communications by Satoshi Nakamoto.

8 THE COURT: All right. Do you want to lay that  
9 foundation with this witness before he starts writing on the  
10 board?

11 MR. KASS: If you can give me one moment, Your Honor.

12 THE COURT: All right.

13 (Pause in proceedings.)

14 BY MR. KASS:

15 Q. Mr. Madura, are you an expert in the Bitcoin blockchain?

16 A. Yes.

17 Q. And in its development?

18 A. Yes.

19 Q. And were you here in court when Mr. Antonopoulos testified?

20 A. I was, yes.

21 Q. Do you recall Mr. Antonopoulos' testimony as to when  
22 Satoshi first started coding the Bitcoin blockchain?

23 A. Yes.

24 Q. And what did Mr. Antonopoulos testify?

25 A. Mr. Antonopoulos relied on similar communications to



1 indicate development began well before 2008.

2 Q. All right. Do you know if he testified it started in 2007?

3 A. I believe so, yes.

4 MR. KASS: Your Honor, I would like to have Mr. Madura  
5 work on the timeline.

6 THE COURT: All right. So this witness is relying  
7 upon the other witness for the information?

8 MR. KASS: Your Honor, he's relying on --

9 THE COURT: Okay. You can go ahead. That's  
10 appropriate.

11 MR. FREEDMAN: Your Honor, I'm still not sure what's  
12 going on the board. He's asking the witness to just write on  
13 the board?

14 THE COURT: Is he going to be writing down 2007? Is  
15 that where we're starting?

16 MR. KASS: He's going to make a timeline and write  
17 2007 as the first date.

18 MR. FREEDMAN: I have no objection to 2007.

19 THE COURT: All right. Then let's continue.

20 (Pause in proceedings.)

21 BY MR. KASS:

22 Q. Mr. Madura --

23 MR. FREEDMAN: Your Honor, may I step around to see  
24 the board?

25 THE COURT: Yes. Of course.

1 BY MR. KASS:

2 Q. Mr. Madura, what is the next public datapoint that we have  
3 with respect to the development and release of the Bitcoin  
4 blockchain?

5 A. The Bitcoin Whitepaper was released on October 31st, 2008.

6 Q. Could you please indicate on the outline the release date  
7 of the Bitcoin Whitepaper.

8 MR. RIVERO: Your Honor, may I also step over here?

9 THE COURT: Yes. Of course.

10 MR. RIVERO: Your Honor, I'd request that we make that  
11 so the jury can observe it.

12 THE COURT: Ladies and Gentlemen, is everyone able to  
13 see the board?

14 THE WITNESS: Should I write bigger?

15 THE COURT: Maybe if you want you can bring it a  
16 little closer. This way the jury can see.

17 Thank you.

18 Okay. Thank you.

19 (Pause in proceedings.)

20 THE COURT: Is everyone able to see now?

21 All right, then.

22 BY MR. KASS:

23 Q. Mr. Madura, after the release of the Bitcoin Whitepaper,  
24 what is the next thing that's known publicly? What was the  
25 next thing that happened with respect to the development of the

1 Bitcoin blockchain?

2 A. Satoshi Nakamoto posted to the similar mailing list a  
3 version of the original source code, and this was January 8th,  
4 2009.

5 Q. And if you could please mark that on the whiteboard for the  
6 jury.

7 A. (Witness complies.)

8 Q. Mr. Madura, when the software was released on January 8th,  
9 2009, was there a logo associated with Bitcoin?

10 A. Yes, there was.

11 Q. And what was that logo?

12 A. The logo looked essentially like a small gold coin with the  
13 letters --

14 MR. FREEDMAN: Objection, Your Honor. Outside the  
15 scope of his disclosed expert report.

16 MR. KASS: Your Honor, Mr. Madura is a rebuttal expert  
17 talking about the development of the Bitcoin blockchain. This  
18 is part of the development and its release.

19 THE COURT: I've got his report in front of me. Can  
20 you just let me know the page of where this is if the objection  
21 is it's outside the scope of his report.

22 MR. KASS: Your Honor, I don't have that in front of  
23 me.

24 THE COURT: It's ECF-497.

25 MR. KASS: Your Honor, could we have a sidebar?

1 THE COURT: We can have a sidebar or you can let the  
2 Court know where it is in the report and I'll overrule the  
3 objection. But absent that, I'm not certain --

4 MR. KASS: Yes, Your Honor.

5 THE COURT: -- what would be the basis.

6 MR. KASS: Sorry. Your Honor, if you could just give  
7 me one minute.

8 THE COURT: Certainly.

9 (Pause in proceedings.)

10 BY MR. KASS:

11 Q. Mr. Madura, did Satoshi -- was there a --

12 MR. FREEDMAN: Wait. Are you asking the same  
13 question?

14 MR. KASS: No. I'm asking a different question. I'm  
15 moving on.

16 MR. FREEDMAN: I apologize.

17 BY MR. KASS:

18 Q. Did Satoshi publicly post on online forums?

19 A. Yes.

20 Q. Was there a particular forum that Satoshi used a lot?

21 A. There was one forum, bitcointalk.org, which was the forum  
22 that Satoshi posted on regularly.

23 Q. Did there come a point in time when Satoshi stopped posting  
24 on the bitcointalk.org forum?

25 A. Yes.

1 Q. And what was that date?

2 A. December 12th, 2010.

3 Q. Mr. Madura, could you mark that on the timeline?

4 A. (Witness complies.)

5 Q. Mr. Madura, thank you.

6 You could go back to your seat for now.

7 A. (Witness complies.)

8 Q. Mr. Madura, I would like to focus on Thanksgiving of 2009,  
9 which would be November 2009. November 26th.

10 Mr. Madura, do you know the state of the Bitcoin blockchain  
11 on Thanksgiving of 2009?

12 MR. FREEDMAN: I'm sorry. Can you repeat the  
13 question?

14 BY MR. KASS:

15 Q. Mr. Madura, do you know the state of the Bitcoin blockchain  
16 on November 26th, 2009?

17 MR. FREEDMAN: Objection. Outside the scope of the  
18 disclosed expert report.

19 MR. KASS: Your Honor, this was addressed --

20 THE COURT: Yes. I'm looking at the report.  
21 Overruled. I'll permit it.

22 THE WITNESS: So at that time the Bitcoin blockchain  
23 was fully functional. It had been publicly released to the  
24 world; there were transactions occurring; there had been  
25 Bitcoin mined, and it was essentially a fully operational,

1 fully fledged system.

2 BY MR. KASS:

3 Q. Do you know how many Bitcoin were mined by November 26th,  
4 2009?

5 A. Yes.

6 Q. How many were mined?

7 A. Approximately 1.4 million.

8 Q. And how do you know that?

9 A. So because it's an open and freely accessible system,  
10 anybody can download a copy of the blockchain. You can also go  
11 onto a publicly available website called Block Explorers to  
12 view and understand how many blocks were mined up until a  
13 specific date or a specific time of day. You multiply that  
14 many blocks by what's called a block subsidy or how many  
15 Bitcoin had been created. At that time it was 50. So you  
16 would take 50 times the number of blocks mined before that date  
17 to arrive at approximately 1.4 million.

18 Q. Mr. Madura, have you reviewed or analyzed the Bitcoin  
19 blockchain code that was released on January 8th of 2009?

20 A. I have, yes.

21 Q. Could you explain to the jury what software code is.

22 A. The software code is essentially a large set of  
23 instructions. Essentially it tells the computer what to do and  
24 how to do it. And there's a variety of different ways you can  
25 do that. There's different programming languages you can do to

1 achieve that.

2 Essentially, code is, again, kind of telling the computer  
3 what to do, how to store data, how to process data. The  
4 Bitcoin software did this in a fairly novel way.

5 Q. What language was the Bitcoin software coded in?

6 A. It's coded in C++.

7 Q. As far as different coding languages go, could you rate C++  
8 on a difficulty scale? Let's say zero being easier to code, 10  
9 being harder to code. Where would C++ fall on that continuum?

10 A. So there are different types of programming languages.  
11 There are what we call low-level programming languages, which  
12 give you much more control over how the computer works, but  
13 that also makes the programming language much more complex to  
14 understand and implement properly without any bugs.

15 There's also what we call high-level languages, which makes  
16 it easier for a human to program it, but you lose some of the  
17 control over the computer and how it does certain things.

18 C++ is what we refer to as a lower-level language, and so  
19 it's much more complex than some of the other languages that  
20 are available for use.

21 Q. Based on your review of the Bitcoin software code that was  
22 released on January 8th, 2009, have you reached any conclusions  
23 as to the skills of the person who coded the Bitcoin software?

24 A. So the developer of the original Bitcoin software was  
25 clearly a very sophisticated coder, not only due to the use of

1 C++ as the primary language -- it alone is very complex and  
2 difficult to understand and is very verbose and has a lot of  
3 different modules you can use essentially -- but the way that  
4 the Bitcoin blockchain code was actually written itself was  
5 very elegant and done in a way that brought together these  
6 concepts from these various fields and actually created  
7 something in code that worked and has stood the test of time  
8 since its original release and created an operating system. So  
9 from that, the coder was very sophisticated.

10 Q. Were there any software bugs when the Bitcoin code was  
11 originally released?

12 A. There were, yes. So over time there were some bugs  
13 discovered in the Bitcoin software, but that's something that  
14 happens typically with software development. It's a very  
15 iterative process. So you continuously make improvements and  
16 changes over time. Even the best programmers can't always find  
17 every single bug or every single error that may exist, and  
18 that's why we write tests, that is why we have teams of people  
19 looking at code to really understand what it's doing.

20 Q. From looking at the Bitcoin software code, have you reached  
21 any conclusions as to how many people likely wrote the code?

22 A. So much like with writing styles, there's also what's known  
23 as a coding style, and different people may have different  
24 coding styles. The original Bitcoin code was generally  
25 consistent with a single coding style.



1 Q. Mr. Madura, I'm going to move on to a slightly different  
2 topic.

3 Are you familiar with the field of expertise called  
4 computer forensics?

5 A. I am, yes.

6 Q. Could you explain to the jury what computer forensics is.

7 A. Computer forensics really is understanding data that's  
8 generated by programs and computers, essentially, and the  
9 analysis of that data. Typically in computer forensics you're  
10 utilizing programs that have been developed by others -- maybe  
11 it's a company or maybe it's an individual -- to facilitate  
12 that analysis.

13 Q. Is computer forensics the same discipline as computer  
14 coding?

15 A. No. They are fundamentally two separate skill sets. As I  
16 mentioned, computer forensics is typically utilizing programs  
17 that have been developed by others, whereas computer  
18 programming or computer engineering is actually writing the  
19 code to make a real program. It's a fundamentally different  
20 type of skill set.

21 Q. Have you reached a conclusion as to what Dave Kleiman's  
22 coding skills likely were?

23 A. Yes. In my review of Dave Kleiman's background, it wasn't  
24 clear to me that he could code in any language, much less C++.

25 Q. What documents or materials did you review in arriving at

1 that conclusion?

2 A. I reviewed Dave Kleiman's resume, which included his  
3 certifications, his publications, his personal website, as well  
4 as documents that he submitted to court.

5 Q. When you were looking at his resume, did you also look at  
6 Kleiman's stated previous work experience?

7 A. I did, yes.

8 Q. And did his previous work experience indicate that he had  
9 any ability to code?

10 A. No.

11 Q. Did you look at Dave Kleiman's personal website?

12 A. I did, yes.

13 Q. Did it show you that Dave Kleiman had -- were there any  
14 indications from his personal website that Dave Kleiman knew  
15 how to code?

16 A. No, there was no evidence of coding or links to coding  
17 repositories or anything of the sort.

18 Q. Are you familiar with a software program called S-Lock?

19 A. I am, yes.

20 Q. Do you know whether Dave Kleiman worked at the company that  
21 had built or was building S-Lock?

22 A. According to his work background, yes, he was at the  
23 company at that time.

24 Q. Have you reviewed what specifically Dave Kleiman was doing  
25 with respect to S-Lock?

1 A. So my understanding of what Dave Kleiman was doing at S  
2 Lock was overseeing the development of S-Lock, of the  
3 application of the programs from a primarily managerial point  
4 of view.

5 Q. Is there any indication that Dave Kleiman did any coding at  
6 S-Lock?

7 A. No.

8 Q. Have you reviewed the deposition transcript of Kimon  
9 Andreou?

10 A. I have, yes.

11 Q. Who do you understand Kimon Andreou to be?

12 A. Mr. Andreou was a colleague of Dave Kleiman and worked with  
13 him while at S-Lock.

14 Q. Did Kimon Andreou state anything about Dave Kleiman's  
15 ability to code?

16 A. Yes. He mentioned that Dave needed help writing even the  
17 simplest of programs and would come to Kimon to write programs  
18 for him essentially because he wasn't able to construct or  
19 write a program himself.

20 Q. And I just want to make sure that I have clear testimony.  
21 Based on all those materials that you talked about that you had  
22 reviewed, did you see any evidence that Dave Kleiman knew how  
23 to code?

24 A. No.

25 Q. Mr. Madura, when you reviewed Dave Kleiman's resume, did

1 you note whether there were any letters or acronyms after his  
2 name?

3 A. Yes, there were.

4 Q. Do you know whether those were certifications?

5 A. Yes. If you compare the letters to the certifications in  
6 his resume, they match up, yes.

7 MR. KASS: Mr. Shah, would you be able to pull up and  
8 only show out to the Judge, witness, and counsel, not the jury,  
9 P478.

10 BY MR. KASS:

11 Q. Mr. Madura, is this the resume that you had reviewed?

12 A. It looks to be.

13 MR. FREEDMAN: Objection, Your Honor. This is not the  
14 resume that was attached to the expert reports.

15 THE COURT: No, that appears to be different.

16 MR. KASS: Okay. I'll ask a different question.

17 THE COURT: All right.

18 BY MR. KASS:

19 Q. Mr. Madura, is this similar to a resume that you reviewed  
20 of Dave Kleiman?

21 A. Yes.

22 Q. And do you see on the top after his name that there's a  
23 bunch of acronyms?

24 A. I see that, yes.

25 MR. KASS: Mr. Shah, if you could go down to the

1 resume, probably on the third or fourth page. Keep on going.

2 Okay. Stop right there.

3 BY MR. KASS:

4 Q. And do you see where it says: "Certifications"?

5 A. I do, yes.

6 Q. And what it says over there for certifications, is that  
7 listing out what the certifications are after Dave Kleiman's  
8 name?

9 A. I believe so, yes.

10 Q. Okay.

11 MR. KASS: You could take down the resume.

12 BY MR. KASS:

13 Q. Mr. Madura, do you know if one or do you recall if one of  
14 the certifications that Dave Kleiman had after his name was  
15 CAS?

16 A. Yes.

17 Q. Do you know if one of them was CCE?

18 A. Yes.

19 Q. Do you know if another was CEECS?

20 A. Yes.

21 Q. Do you know if another was CIFI?

22 A. Yes.

23 Q. Do you know if another was CISM?

24 A. Yes.

25 Q. Do you know if another one was CISSP?

1 A. Yes.

2 Q. Do you know if another one was ISSAP?

3 A. Yes.

4 Q. Do you know if another one was ISSMP?

5 A. Yes.

6 Q. Do you know if another one was MCSE?

7 A. Yes.

8 Q. And do you know if another one was MVP?

9 A. Yes.

10 Q. Are you aware of any other certifications that Dave Kleiman  
11 would put after his name?

12 A. No.

13 Q. Do you know -- could you explain to the jury, generally,  
14 what type of certifications those are?

15 A. So those certifications relate to the field of computer  
16 forensics. So it certifies you in the ability to utilize  
17 software in a certain way or configure Windows operating  
18 systems or other programs in a certain way to essentially make  
19 them more secure or less secure. I mean, you're demonstrating  
20 your knowledge of how particular software systems work.

21 Q. Do you know whether computer coding was necessary to obtain  
22 those certifications?

23 A. It is not.

24 Q. Do you know whether there was a study component that was  
25 necessary to obtain those certifications?

1 A. So for most of those certifications, there's often a  
2 required training course that one must go through in order to  
3 pass the course and then achieve the certification.

4 MR. KASS: Your Honor, this is a good place for me to  
5 stop.

6 THE COURT: All right. Certainly.

7 Ladies and Gentlemen, at this point in time we will  
8 adjourn for the evening. I will see you tomorrow morning at  
9 9:45. If you'll make your way into the building and be ready  
10 to come into the courtroom.

11 Please remember you're not to discuss this case with  
12 anyone nor permit anyone to speak with you. You're not to  
13 conduct any independent research. Everything learned about the  
14 case is learned within this courtroom.

15 Have a pleasant evening and I'll see you tomorrow  
16 morning.

17 (Jury not present, 5:01 p.m.)

18 THE COURT: Mr. Madura, we'll see you tomorrow  
19 morning, sir.

20 THE WITNESS: Yes, Your Honor.

21 THE COURT: All right. Go ahead and have a seat.  
22 Are there issues that we can address at this time?

23 MS. MCGOVERN: Your Honor, I believe we can go ahead  
24 and schedule Mr. Kuharcik for a Zoom presentation of his  
25 testimony on Friday at 10:00.

1 THE COURT: All right. At 10:00. So we will have the  
2 Zoom link.

3 I do wish to advise you, while this courtroom is  
4 public and all of the exhibits are displayed on the gallery  
5 screens, the Zoom will not be a public proceeding. That is,  
6 everyone in the courtroom will be able to see the witness. But  
7 I would ask, since we do not have the laptops for the Zoom,  
8 that the attorneys bring their laptops at the time so that you  
9 can hook up to the Zoom link here in the courtroom.

10 MS. MCGOVERN: Your Honor, if I may just state one  
11 caveat. To the extent that a witness has rolled over to  
12 Friday, in light of the IT issue, would you mind if we simply  
13 take Mr. Kuharcik out of turn so that we can do that or --

14 THE COURT: Not at all.

15 Liz, when will you have the Zoom link for the parties?

16 THE DEPUTY CLERK: I sent it to them.

17 THE COURT: So it has already been sent to you. That  
18 link will be valid from now until the conclusion of trial.

19 I did receive the 26-page motion on behalf of the  
20 Defendants. I certainly want to give the Plaintiffs an  
21 opportunity to respond, and it would be appropriate to respond  
22 in writing. So the motion has certainly been preserved, and  
23 we'll address the issues with regard to the damages in Counts  
24 1, 2, 5, 6, 7, and 8 when the Plaintiffs have an opportunity to  
25 respond.



1 Are there any other issues that we can address?

2 MR. RIVERO: Not from the Defendants, Your Honor.

3 MR. FREEDMAN: Your Honor, sorry. Your Honor two  
4 questions. One is: I have not yet seen the motion, but if  
5 it's 26 pages, may the Plaintiffs also have permission to  
6 exceed the page limit of the local rules?

7 THE COURT: Yes. Of course. You'll have the  
8 opportunity to respond, and I'm not going to address the motion  
9 until the Plaintiffs have had that opportunity.

10 MR. FREEDMAN: Your Honor, is it a 14-day response  
11 time like normal?

12 THE COURT: No, sir. It's not tomorrow, but I would  
13 expect that the Court would need to rule on this motion at some  
14 point before the close of the Defendant's case.

15 MR. FREEDMAN: Can we talk internally and tomorrow  
16 morning report a date by which we think we can respond?

17 THE COURT: Certainly. Of course. Why don't you take  
18 the time to review that and then let the Court know.

19 I'm not certain where we are in terms of the  
20 scheduling of the witnesses and if you believe that we're on  
21 schedule to conclude by the 23rd. So do you believe that we  
22 are at a point where we can let the jury know that this will be  
23 the last full week?

24 MR. RIVERO: Judge, we are striving to meet that  
25 deadline, but, you know, things have changed, as they usually

1 do in trials as we go. It is our goal to get there.

2 THE COURT: All right. Well, after Mr. Madura, do we  
3 know who your next witness is?

4 MR. RIVERO: I think we have advised --

5 MS. MCGOVERN: We actually have a complete lineup of  
6 the witnesses. We have provided Plaintiffs' counsel with all  
7 witnesses through Thursday, and simply to move this along we  
8 have no problem sharing that information.

9 THE COURT: All right. Are there any issues for the  
10 Court to address with regard to these witnesses other than  
11 Mr. Madura?

12 MR. RIVERO: No, Your Honor.

13 THE COURT: Okay. All right. Let me state that the  
14 one question that has been asked so far will be Court Exhibit  
15 No. 1 and that will be part of the record.

16 MR. FREEDMAN: Thank you.

17 Your Honor, the easiest way to confirm the exhibits,  
18 do you want us to confer with Defendants and make sure we have  
19 the same list and we can submit that to chambers and the Court  
20 can confirm that that matches?

21 THE COURT: Yes, if you would. I have them marked,  
22 and we certainly have the record, but I think that would make a  
23 lot more sense.

24 Let me just caution you that there are many exhibits  
25 and at the appropriate time I am going to ask the attorneys to

1 each provide -- we'll have 10 jurors -- so I think it's  
2 appropriate to have at least two clean laptops that can be  
3 provided to the jurors with the uploaded exhibits that the  
4 parties have agreed have been admitted into evidence.

5 MR. FREEDMAN: Yes, Your Honor.

6 THE COURT: Okay. We will have one list of the  
7 exhibits, so they can reference the exhibits, similar to the  
8 exhibit list that you have filed with the Court. But it would  
9 not reference Plaintiff or Defendant; it would just be the  
10 exhibits that were admitted into evidence.

11 So, Mr. Freedman, would you be responsible for that,  
12 sir?

13 MR. FREEDMAN: Sure, Your Honor.

14 THE COURT: All right. Is there anything further?

15 MR. FREEDMAN: Not for Plaintiffs.

16 MR. RIVERO: No, Your Honor.

17 THE COURT: Okay. Take your time. We do have two  
18 proceedings tomorrow morning. So if you would be kind enough  
19 just to clear the items so we can make use of the table.

20 Have a nice evening.

21 (Proceedings adjourned at 5:06 p.m.)

22

23

24

25

1 UNITED STATES OF AMERICA )

2 ss:

3 SOUTHERN DISTRICT OF FLORIDA )

4 C E R T I F I C A T E

5 I, Yvette Hernandez, Certified Shorthand Reporter in  
6 and for the United States District Court for the Southern  
7 District of Florida, do hereby certify that I was present at  
8 and reported in machine shorthand the proceedings had the 16th  
9 day of November, 2021, in the above-mentioned court; and that  
10 the foregoing transcript is a true, correct, and complete  
11 transcript of my stenographic notes.

12 I further certify that this transcript contains pages  
13 1 - 244.

14 IN WITNESS WHEREOF, I have hereunto set my hand at  
15 Miami, Florida this 26th day of November, 2021.

16  
17 /s/Yvette Hernandez  
18 Yvette Hernandez, CSR, RPR, CLR, CRR, RMR  
19 400 North Miami Avenue, 10-2  
20 Miami, Florida 33128  
21 (305) 523-5698  
22 yvette\_hernandez@flsd.uscourts.gov  
23  
24  
25

**COURT REPORTER:****[2]** 51/22 149/25**COURTROOM DEPUTY:****[3]** 16/12 86/24  
214/6**MR. BRENNER: [3]**

3/8 10/15 12/4

**MR. FERNANDEZ: [8]**8/7 8/22 9/12  
9/21 10/1 10/10  
11/17 53/23**MR. FREEDMAN: [40]**14/7 66/22 67/4  
69/11 69/17 70/5  
70/18 71/9 72/8  
72/11 74/5 74/9  
121/25 122/6  
123/21 213/3  
213/13 217/21  
218/6 218/24  
219/12 221/11  
223/8 224/4 225/11  
225/18 225/23  
227/14 228/12  
228/16 229/12  
229/17 236/13  
241/3 241/10  
241/15 242/16  
243/5 243/13  
243/15**MR. KASS: [34]**213/25 218/9  
218/12 219/4  
219/13 219/18  
220/5 220/9 220/24  
221/9 221/13  
221/18 222/5 222/9  
222/13 222/24  
223/13 224/6  
224/11 225/4 225/8  
225/16 227/16  
227/22 227/25

228/4 228/6 228/14

229/19 236/7

236/16 236/25

237/11 239/4

**MR. RIVERO: [196]**3/5 3/14 3/19 5/12  
6/16 7/15 13/14  
13/23 15/8 16/3  
16/6 16/8 16/22  
16/25 18/15 24/7  
26/22 32/9 32/19  
33/13 34/4 34/16  
35/13 36/8 38/20  
43/5 45/14 47/10  
48/4 50/10 50/25  
51/4 51/24 54/13  
54/21 57/5 58/15  
59/14 60/14 62/18  
62/20 63/22 67/21  
67/24 68/11 71/5  
71/8 71/23 72/4  
72/10 72/13 74/6  
75/1 77/9 78/6  
78/23 80/13 82/20  
82/23 83/25 88/23  
90/21 99/6 111/16  
111/21 112/8  
112/14 112/18  
115/5 116/2 116/7  
120/22 120/25  
121/11 121/23  
122/12 122/16  
123/4 123/14 129/1  
131/14 131/22  
131/25 133/2  
135/22 135/25  
141/2 142/22  
142/25 146/8  
146/12 147/6  
147/11 147/14  
149/11 149/19  
149/23 150/1 150/8  
150/10 150/15  
150/17 150/19

150/23 151/10

151/14 151/17

151/19 151/22

152/3 152/7 152/9

158/8 160/24 161/2

161/10 161/15

163/2 163/4 163/10

164/9 164/14

164/16 164/19

164/22 164/24

165/8 165/22 166/5

166/13 166/23

167/7 167/14 168/3

168/12 169/11

169/22 171/6

171/15 182/19

182/24 183/6

184/17 184/24

185/2 186/23 187/6

187/13 187/25

188/11 188/16

188/25 191/4

191/18 192/10

193/2 194/1 194/25

195/3 195/15

195/25 197/19

198/5 198/8 199/13

201/3 201/9 202/4

202/7 202/20

202/23 204/13

204/15 205/10

205/12 206/19

206/22 207/14

208/18 210/9

210/20 211/4

211/16 211/18

212/14 213/5 213/8

213/19 214/19

226/8 226/10 241/2

241/24 242/4

242/12 243/16

**MR. ROCHE: [232]**5/24 6/1 6/14 7/5  
7/13 13/16 14/2

**MR. ROCHE: . . .**

**[225]** 14/4 14/6  
 14/9 14/24 15/3  
 15/5 15/21 15/25  
 16/16 17/16 17/20  
 18/5 18/13 18/19  
 19/11 20/8 20/13  
 20/24 21/22 21/25  
 22/6 22/10 23/4  
 23/17 23/22 24/5  
 24/10 25/5 25/24  
 26/20 26/25 27/9  
 28/6 28/9 29/11  
 31/21 32/7 32/13  
 32/25 35/17 36/6  
 36/9 36/17 36/25  
 37/5 37/24 38/6  
 38/18 38/24 39/9  
 40/1 41/9 41/12  
 41/18 42/14 43/3  
 43/9 44/21 45/12  
 45/17 45/23 46/16  
 46/21 46/25 47/4  
 47/8 47/14 47/22  
 49/10 49/23 51/3  
 51/6 51/9 52/15  
 52/22 52/25 53/13  
 53/19 53/21 53/25  
 54/2 54/17 54/25  
 55/9 55/12 56/3  
 56/10 56/21 57/13  
 58/21 59/2 59/5  
 59/10 59/19 59/23  
 60/3 60/12 60/18  
 61/11 62/22 63/9  
 64/23 65/16 66/6  
 66/13 74/20 74/24  
 75/5 76/7 77/18  
 78/7 78/13 78/21  
 80/21 81/18 83/6  
 83/8 83/13 83/23  
 84/4 85/5 85/19

86/12 86/25 87/2  
 88/16 88/21 89/2  
 89/14 89/24 90/3  
 91/3 91/17 92/11  
 92/14 92/17 92/23  
 99/4 99/13 100/4  
 101/15 101/20  
 114/6 114/11  
 114/20 119/5 123/5  
 124/3 124/15  
 124/22 125/6 128/2  
 131/18 135/20  
 136/6 136/13  
 145/25 147/25  
 149/10 149/17  
 150/12 150/16  
 150/18 150/21  
 151/20 153/9 155/9  
 155/11 156/24  
 157/9 158/2 158/19  
 162/6 164/2 164/12  
 165/19 166/2 166/9  
 166/22 168/14  
 168/20 169/6 170/5  
 171/18 175/8 178/7  
 180/6 181/2 184/12  
 185/4 185/15 188/2  
 188/21 189/16  
 190/11 191/13  
 193/4 193/14  
 194/12 195/24  
 197/1 197/25  
 198/19 204/7  
 204/11 204/18  
 205/15 205/19  
 205/21 206/16  
 207/2 207/7 207/9  
 207/17 208/3  
 209/14 209/20  
 210/12 210/23  
 211/5 211/17  
 211/20 211/24  
 212/13 213/7

**MS. McGOVERN: [11]**  
 12/9 12/12 12/21

12/25 13/2 13/9

14/1 14 131/01

239/23 240/10

242/5

**THE COURT: [301]****THE DEFENDANT: [2]**

73/22 74/2

**THE DEPUTY CLERK:****[1]** 240/16**THE WITNESS: [30]**

14/3 14/5 77/11

99/16 114/22 119/7

119/10 128/4

136/15 148/2

153/12 157/2

157/12 167/1

168/22 170/7 181/4

185/17 189/19

194/14 197/4

198/22 211/11

212/22 214/10

218/1 218/16

226/14 229/22

239/20

**\$****\$125,000 [1]**

102/25

**\$16,000 [2]** 103/12

103/12

**\$28,000 [2]** 103/7

103/8

**\$560 [1]** 101/23**\$665 [1]** 215/13**/****/s/Yvette [1]**

244/17

**0****00081546 [2]**

167/18 167/21

**0027 [1]** 41/1**00521091 [2]**

187/10 188/15

<b>1</b>	<b>11:33 [1]</b> 66/20	<b>18 [4]</b> 2/10 2/10
USCA11 Case: 22-11150 Document 53-13 Date Filed: 11/30/22 Page: 47 of 254	<b>11:48 [1]</b> 68/5	<b>187 [1]</b> 2/24
<b>1,100,111 [1]</b>	<b>11:55 [1]</b> 74/10	<b>188 [1]</b> 2/24
87/15	<b>12 [13]</b> 29/19	<b>19 [1]</b> 189/14
<b>1,500 [1]</b> 202/12	39/14 47/18 47/22	<b>19.4 million [1]</b>
<b>1.1 [1]</b> 87/15	61/4 62/1 62/3	142/2
<b>1.4 million [2]</b>	62/6 168/18 193/11	<b>1933 [4]</b> 197/20
230/7 230/17	200/15 200/16	197/21 197/23
<b>10 [39]</b> 1/9 1/11	200/24	198/11
15/15 15/16 21/5	<b>12th [8]</b> 21/4 39/5	<b>19th [1]</b> 30/10
39/15 39/19 39/20	61/3 192/4 194/4	<b>1:01 [2]</b> 121/14
61/3 61/23 63/4	194/16 203/19	121/17
63/5 63/18 66/17	229/2	<b>1st [1]</b> 153/15
87/23 88/16 89/12	<b>13 [6]</b> 61/2 62/2	
90/6 91/6 91/15	62/3 62/6 187/6	<b>2</b>
91/21 92/6 107/17	188/14	<b>2,000 [1]</b> 115/13
108/12 127/9	<b>135 [9]</b> 21/23 22/3	<b>20 [5]</b> 21/6 61/10
127/10 128/25	22/6 22/16 24/13	61/11 61/15 61/17
129/15 145/20	24/16 24/17 24/23	<b>20-minute [4]</b>
146/19 188/8	196/12	66/19 66/21 184/21
201/18 202/11	<b>135.1 [7]</b> 2/11	184/23
202/12 205/1 205/9	23/24 24/2 24/6	<b>200 [1]</b> 1/14
208/23 231/8 243/1	24/9 24/14 24/16	<b>2000 [1]</b> 90/19
<b>10-2 [2]</b> 1/24	<b>14 [1]</b> 177/22	<b>2002 [3]</b> 172/13
244/18	<b>14-day [1]</b> 241/10	172/15 172/20
<b>100 [4]</b> 1/17	<b>15 [7]</b> 2/5 29/19	<b>2007 [8]</b> 220/1
138/25 139/5 139/8	48/12 48/15 65/22	222/22 223/5 224/3
<b>1000 [1]</b> 1/21	65/23 68/3	225/2 225/14
<b>10:00 [3]</b> 13/5	<b>15th [1]</b> 25/13	225/17 225/18
239/25 240/1	<b>16 [11]</b> 1/5 42/2	<b>2008 [11]</b> 168/18
<b>10:04 [2]</b> 1/6 3/1	48/12 75/8 75/15	192/4 193/11 194/4
<b>10:07 [3]</b> 67/5	75/17 85/11 85/12	194/17 200/16
68/9 71/14	85/13 103/4 103/6	200/17 200/24
<b>10:19 [1]</b> 14/17	<b>16th [4]</b> 42/1	203/19 225/1 226/5
<b>10th [1]</b> 87/11	43/21 43/22 244/8	<b>2009 [10]</b> 187/6
<b>11 [11]</b> 27/6 39/18	<b>17 [6]</b> 75/8 75/16	227/4 227/9 229/8
39/19 39/20 47/20	75/17 85/11 85/12	229/9 229/11
47/22 89/7 127/8	85/13	229/16 230/4
127/9 128/15 129/6	<b>171 [2]</b> 2/24 2/24	230/19 231/22
<b>115 [1]</b> 194/24	<b>17th [12]</b> 39/15	<b>2010 [3]</b> 172/7
<b>117 [2]</b> 210/13	58/2 58/13 61/23	172/9 229/2
210/21	64/14 65/15 75/11	<b>2011 [21]</b> 56/4
<b>11:25 [1]</b> 66/16	81/10 153/21	58/3 61/3 63/18
<b>11:30 [1]</b> 68/5	158/12 172/9 190/3	

<b>2</b>	103/6 103/15	<b>27 [1]</b> 76/23
USCA11 Case: 22-11150 Document: 53-1 Date Filed: 11/30/22 Page: 48 of 254	103/18 118/13	<b>271 [1]</b> 178/2
<b>2011...</b> [17] 65/25	120/1 120/2 123/24	<b>272 [1]</b> 177/22
75/12 76/13 77/6	124/16 188/14	<b>273 [1]</b> 177/22
77/6 77/8 79/10	206/7 206/9	<b>274 [1]</b> 177/22
81/6 87/11 87/12	<b>2021 [3]</b> 1/5 244/9	<b>275 [1]</b> 177/22
87/13 189/7 189/15	244/15	<b>28 [5]</b> 76/20 76/25
193/11 193/20	<b>204 [1]</b> 2/6	77/2 77/4 77/5
194/9 194/16	<b>20th [4]</b> 36/22	<b>2800 [1]</b> 1/17
<b>2012 [19]</b> 17/4	45/2 46/5 189/7	<b>28th [6]</b> 19/4 35/9
21/4 22/19 23/7	<b>21 [2]</b> 61/19 76/15	35/10 123/10
25/13 29/10 30/9	<b>213 [1]</b> 2/2	146/24 147/2
30/10 36/22 45/2	<b>214 [1]</b> 2/8	<b>2:00 [3]</b> 121/13
46/5 79/18 86/19	<b>22 [1]</b> 61/21	121/16 121/17
87/9 87/20 88/4	<b>22nd [2]</b> 84/11	<b>2:02 [1]</b> 125/8
89/7 91/1 216/21	89/7	<b>2nd [9]</b> 1/17 11/16
<b>2013 [5]</b> 65/24	<b>23 [9]</b> 61/10 61/11	24/17 24/18 27/21
65/25 82/3 84/14	61/15 61/22 62/3	82/3 193/11 193/20
138/20	62/4 62/16 62/24	194/9
<b>2014 [33]</b> 11/16	76/16	
19/4 20/21 24/17	<b>23rd [6]</b> 79/10	<b>3</b>
27/6 27/21 35/9	86/19 87/9 87/20	<b>30 [5]</b> 92/5 107/17
35/10 39/5 39/15	88/4 241/21	107/21 133/5
42/1 42/2 43/21	<b>24 [4]</b> 2/11 2/11	153/22
43/22 44/15 58/2	187/7 187/14	<b>305 [1]</b> 244/19
58/13 61/23 64/14	<b>244 [3]</b> 1/8 2/2	<b>30th [2]</b> 131/11
65/15 75/11 81/11	244/13	133/13
84/11 88/6 108/21	<b>24th [11]</b> 56/4	<b>31st [3]</b> 22/19
120/5 138/14	58/3 63/18 75/12	23/7 226/5
146/23 146/24	76/13 77/6 77/6	<b>32 [2]</b> 2/13 2/13
147/3 206/12 209/1	77/8 79/10 79/18	<b>320,832 [1]</b> 21/7
209/7	81/6	<b>320,832.1 [1]</b>
<b>2015 [17]</b> 89/22	<b>25 [5]</b> 76/18 92/5	199/10
90/11 90/13 90/17	107/17 107/20	<b>33128 [2]</b> 1/24
90/20 90/25 91/10	187/7	244/18
91/13 91/16 108/22	<b>2525 [1]</b> 1/21	<b>33131 [2]</b> 1/14
138/18 168/19	<b>26 [8]</b> 2/12 2/12	1/17
169/2 169/16 181/6	2/12 2/12 76/20	<b>33134 [1]</b> 1/22
181/11 181/12	76/23 76/25 241/5	<b>34 [6]</b> 2/24 186/24
<b>2017 [1]</b> 98/5	<b>26-page [1]</b> 240/19	187/15 188/1 188/6
<b>2018 [5]</b> 131/11	<b>26th [7]</b> 27/6	188/17
133/5 133/9 133/10	133/9 133/10 229/9	<b>340 [1]</b> 202/4
133/13	229/16 230/3	<b>35 [19]</b> 55/9 55/15
<b>2019 [12]</b> 103/4	244/15	55/19 56/12 56/21



<b>3</b>	<b>43 [4]</b> 2/15 2/15	58/14 58/19 58/21
<b>35... [14]</b> 56/24	<b>45 [6]</b> 2/16 2/16	59/1 59/5 59/19
57/4 57/8 57/11	43/20 101/13 136/4	60/2 60/24 61/1
77/14 81/4 81/5	156/15	61/24 66/9 74/23
84/11 108/15	<b>450 [2]</b> 147/5	75/8 75/9 75/11
164/11 164/15	147/8	75/13 76/2 76/5
164/18 164/20	<b>452 [8]</b> 28/6 28/12	77/13 80/9 80/18
165/9	28/13 29/25 30/5	81/4 81/9 85/22
<b>36 [9]</b> 2/13 2/13	30/6 32/5 34/22	85/22
86/14 86/25 87/2	<b>456 [1]</b> 15/23	<b>518.1 [6]</b> 2/18
87/3 87/22 89/25	<b>47 [4]</b> 2/17 2/17	58/22 58/25 59/1
91/15	2/17 2/17	60/12 60/16
<b>38 [6]</b> 2/14 2/14	<b>49 [5]</b> 64/5 64/6	<b>518.2 [20]</b> 2/19
2/14 2/14 2/15	64/7 64/9 64/15	59/5 59/11 59/13
2/15	<b>497 [1]</b> 227/24	59/17 59/20 59/25
<b>383 [1]</b> 220/25	<b>4th [2]</b> 20/21	60/1 60/12 60/16
<b>398 [1]</b> 220/6	147/3	60/19 60/23 60/25
<b>3:23 [2]</b> 184/22		61/1 61/24 65/18
184/25	<b>5</b>	65/21 75/12 75/16
<b>3:40 [1]</b> 184/25	<b>50 [9]</b> 7/3 7/6	85/8
<b>3:42 [1]</b> 185/6	64/11 107/25	<b>518.3 [5]</b> 2/20
<b>4</b>	108/17 155/24	66/15 74/20 74/24
<b>40 [13]</b> 43/14	162/22 230/15	75/3
107/25 108/14	230/16	<b>518.4 [5]</b> 2/20
108/15 152/14	<b>51 [5]</b> 44/2 44/3	66/15 74/20 74/25
155/23 156/12	57/4 64/13 206/2	75/3
156/12 162/17	<b>514 [27]</b> 56/21	<b>518.7 [8]</b> 2/19
162/22 169/4 186/2	56/25 57/1 57/8	59/5 59/7 59/8
188/9	57/11 57/19 57/21	60/13 60/16 65/19
<b>400 [2]</b> 1/24	57/24 58/2 58/19	65/23
244/18	59/2 60/11 75/9	<b>52 [4]</b> 64/5 64/6
<b>401 [2]</b> 4/3 5/6	75/12 75/14 76/2	64/7 203/10
<b>401/403 [1]</b> 3/24	76/5 76/11 76/11	<b>521 [5]</b> 88/11
<b>403 [4]</b> 3/24 5/6	76/13 76/13 77/13	88/15 88/20 89/20
6/22 7/3	80/8 80/18 81/4	89/25
<b>404 [1]</b> 165/9	81/7 85/22	<b>521.1 [7]</b> 2/23
<b>41 [1]</b> 43/16	<b>514.1 [12]</b> 2/18	88/12 88/14 88/15
<b>412 [3]</b> 2/24	58/22 59/3 59/11	88/21 88/25 89/3
171/16 171/20	60/4 60/9 60/10	<b>521.7 [8]</b> 2/23
<b>42 [1]</b> 43/18	60/12 60/16 75/13	88/12 88/18 88/19
<b>428 [5]</b> 167/7	75/16 85/8	88/22 88/25 89/18
167/8 167/15	<b>518 [29]</b> 57/19	89/19
167/20 167/23	57/22 57/23 58/2	<b>523-5698 [1]</b>
		244/19

<b>5</b>	26/12 26/16 26/18	2/21 2/21
USCA11 Case: 22-11150 Document: 63-23 Date Filed: 11/30/22 Page: 50 of 254	27/16 27/17 16/47	71/20 [6] 17/4 21/4
<b>536 [2]</b> 87/1 89/23	195/7 195/10 201/2	172/13 172/14
<b>538 [12]</b> 77/18	201/10 201/13	172/17 172/20
77/24 77/25 78/10	<b>55.1 [8]</b> 2/12 26/9	<b>8</b>
78/18 79/4 80/7	26/11 26/12 26/20	<b>80/20 [1]</b> 21/6
80/9 80/18 81/4	26/24 27/3 27/5	<b>801 [1]</b> 38/1
81/14 134/3	<b>55.1's [1]</b> 26/13	<b>802 [1]</b> 38/1
<b>538.1 [10]</b> 2/21	<b>55.3 [9]</b> 2/12 26/9	<b>803 [1]</b> 38/1
78/13 78/16 78/17	26/15 26/16 26/20	<b>807 [25]</b> 2/13
78/20 78/22 78/25	26/24 27/10 27/16	35/18 35/20 36/7
79/3 79/7 79/8	27/17	36/16 36/19 36/20
<b>538.2 [8]</b> 2/21	<b>5500 [1]</b> 1/14	37/17 38/11 38/16
78/13 78/19 78/20	<b>5698 [1]</b> 244/19	39/2 39/4 40/4
78/22 78/25 79/17	<b>58.160.32.123 [3]</b>	40/11 40/12 41/14
80/1	44/4 112/15 113/10	41/23 42/5 47/21
<b>540 [12]</b> 81/19	<b>586.2 [1]</b> 207/9	49/16 50/2 50/4
81/22 81/22 81/23	<b>5:01 [1]</b> 239/17	111/15 111/17
82/2 83/4 83/9	<b>5:06 [1]</b> 243/21	111/19
83/12 83/19 83/21	<b>6</b>	<b>807.1 [12]</b> 2/14
85/23 86/2	<b>60 [10]</b> 2/18 2/18	38/4 38/18 38/22
<b>540.1 [6]</b> 2/22	2/18 2/18 2/19	40/1 46/21 46/23
83/20 83/21 83/23	2/19 2/19 2/19	47/8 47/23 47/25
84/2 85/8	63/11 63/13	48/10 48/18
<b>540.2 [7]</b> 2/22	<b>61 [1]</b> 63/15	<b>807.2 [8]</b> 2/14
83/6 83/17 83/24	<b>613 [10]</b> 2/13	38/6 38/18 38/22
84/2 84/6 84/9	31/22 31/24 31/25	40/2 40/4 40/5
<b>546 [18]</b> 16/1	32/7 32/12 32/24	49/12
16/14 16/18 16/21	33/1 33/3 33/4	<b>807.3 [6]</b> 2/15
17/11 18/1 18/12	<b>62 [1]</b> 63/16	38/13 38/18 38/22
18/21 20/18 145/14	<b>63 [1]</b> 63/17	39/2 39/3
146/3 146/6 146/9	<b>630 [2]</b> 160/24	<b>808 [18]</b> 2/16
146/14 146/16	161/4	44/23 44/25 45/1
146/21 199/3 199/4	<b>64 [1]</b> 63/11	45/13 45/22 46/2
<b>546.1 [9]</b> 2/10	<b>6a5e8226 [1]</b> 48/15	46/3 46/12 46/19
17/18 18/6 18/10	<b>6th [2]</b> 29/10 30/9	47/3 47/7 47/20
18/11 18/13 18/17	<b>7</b>	48/3 48/8 49/18
18/22 20/15	<b>71 [2]</b> 65/18 65/21	50/3 50/5
<b>546.2 [8]</b> 2/11	<b>74 [2]</b> 2/20 2/20	<b>808.1 [11]</b> 2/17
17/18 17/22 17/24	<b>75 [2]</b> 2/20 2/20	46/25 47/2 47/9
17/25 18/14 18/17	<b>75d61 [1]</b> 75/22	47/12 47/17 48/3
20/18	<b>78 [4]</b> 2/21 2/21	48/7 48/8 48/10
<b>55 [16]</b> 25/6 25/11		48/18
25/14 25/17 25/19		

<b>8</b>	68/5 68/5 74/10	104/12 104/15
USCA11 Case: 22-11150 Document: 63-13 Date Filed: 11/30/2022 Page: 51 of 254	185/6 105/4	104/18 105/4
<b>808.2 [8]</b> 2/17	<b>abilities [1]</b>	106/10 106/24
47/4 47/6 47/9	136/12	107/2 107/5 107/25
47/12 49/10 49/13	<b>ability [16]</b> 34/14	107/25 108/3 108/7
49/15	34/19 34/21 69/22	108/9 108/11
<b>822 [3]</b> 54/4 55/2	69/23 70/15 110/4	110/23 113/6
55/4	113/19 113/24	117/14 117/24
<b>83 [2]</b> 2/22 2/22	114/3 114/23 200/7	118/25 119/14
<b>84 [2]</b> 2/22 2/22	200/9 234/9 235/15	119/18 120/9
<b>856 [5]</b> 41/9 41/23	238/16	120/21 128/21
42/12 43/13 208/8	<b>able [30]</b> 4/16	129/5 132/3 133/16
<b>856.1 [12]</b> 2/15	12/18 16/4 32/11	134/5 134/15
42/15 42/18 42/18	35/4 35/6 44/10	136/10 139/23
42/19 43/3 43/7	52/9 67/7 68/18	141/23 143/16
43/12 205/17	71/11 112/5 113/25	143/25 145/16
205/19 205/25	119/1 128/22	146/5 147/5 148/6
206/2	134/24 135/9	151/1 151/7 153/3
<b>856.2 [20]</b> 2/16	143/20 144/25	155/4 156/6 163/17
42/16 42/21 42/22	162/15 168/21	170/1 170/22 171/1
42/24 43/4 43/7	169/1 179/18	172/18 172/25
44/2 44/10 112/7	185/25 204/23	173/13 173/18
112/9 116/9 141/1	226/12 226/20	174/3 176/16
141/4 205/17	235/18 236/7 240/6	176/19 177/6
205/23 205/25	<b>about [140]</b> 4/6	178/12 180/21
206/1 207/9 207/25	4/19 4/24 5/21 6/2	180/21 181/23
<b>88 [4]</b> 2/23 2/23	6/20 7/2 9/1 9/15	182/10 182/11
2/23 2/23	11/14 27/7 33/19	184/19 187/2 188/9
<b>8th [4]</b> 227/3	34/19 39/12 40/4	191/7 191/8 198/5
227/8 230/19	41/6 43/13 44/6	199/4 201/18
231/22	44/11 47/21 48/10	211/18 211/19
<b>9</b>	49/13 52/1 52/2	214/16 214/16
<b>90-year-old [1]</b>	52/4 52/18 52/19	215/15 215/20
12/16	53/14 68/25 70/6	220/20 227/17
<b>93 [1]</b> 2/6	70/7 70/22 72/14	235/14 235/21
<b>9:18-cv-80176-BB</b>	72/21 72/24 73/23	239/13
<b>[1]</b> 1/2	76/2 76/10 76/23	<b>above [1]</b> 244/9
<b>9:45 [1]</b> 239/9	77/3 78/10 82/4	<b>above-mentioned [1]</b>
<b>9th [2]</b> 87/12	82/16 84/15 84/17	244/9
87/13	84/18 85/2 86/20	<b>absent [2]</b> 73/6
<b>A</b>	87/24 88/2 91/15	228/3
<b>a.m [9]</b> 1/6 3/1	92/5 93/5 94/15	<b>absolute [1]</b>
13/5 14/17 66/20	95/4 95/5 97/3	107/12
	101/6 104/6 104/9	<b>absolutely [4]</b> 4/5

<b>A</b>	186/11	122/17 122/23
<b>absolutely... [3]</b>	<b>acronyms [2]</b>	137/25 138/3
67/22 123/14	236/23	139/15 193/20
123/19	<b>act [1]</b> 170/17	194/6 194/15 197/7
<b>accept [5]</b> 5/18	<b>acting [1]</b> 5/3	197/18 206/1 206/9
46/6 82/8 207/16	<b>action [1]</b> 69/14	206/12 207/24
218/14	<b>activities [3]</b>	219/5 239/22
<b>acceptable [1]</b>	73/8 98/15 98/19	240/23 241/1 241/8
122/10	<b>actual [7]</b> 11/22	242/10
<b>accepted [3]</b> 99/17	72/14 181/21	<b>addressed [1]</b>
101/8 223/22	217/10 217/10	229/19
<b>access [19]</b> 7/17	217/14 220/23	<b>addresses [17]</b>
82/10 110/18 112/8	<b>actually [19]</b> 3/14	22/22 22/23 22/24
119/1 120/6 131/6	4/14 23/4 66/14	23/2 23/13 33/10
137/20 148/18	79/18 98/23 143/9	112/15 130/12
148/22 148/25	144/3 159/10	130/15 137/12
149/7 150/25 152/3	175/12 177/10	139/13 192/20
177/19 177/23	178/16 203/6	196/22 197/5
177/25 200/4	217/12 220/17	197/11 198/5
200/12	232/4 232/6 233/18	198/13
<b>AccessData [1]</b>	242/5	<b>Addressing [1]</b>
100/11	<b>add [2]</b> 4/9 50/23	68/8
<b>accessible [1]</b>	<b>added [7]</b> 64/7	<b>adds [1]</b> 4/4
230/9	65/3 65/4 65/7	<b>adjourn [1]</b> 239/8
<b>according [5]</b> 44/4	65/8 65/9 65/12	<b>adjourned [1]</b>
63/17 119/10	<b>additional [10]</b>	243/21
195/13 234/22	5/5 5/5 15/14	<b>administers [2]</b>
<b>account [9]</b> 34/3	49/17 61/15 92/3	192/19 192/21
34/15 64/11 67/20	153/18 158/13	<b>admissible [3]</b>
131/6 136/9 136/11	159/14 212/23	45/15 45/17 53/8
136/20 136/25	<b>Additionally [1]</b>	<b>admission [5]</b>
<b>accountant [1]</b>	91/10	131/16 131/17
82/13	<b>address [47]</b> 3/6	171/16 188/1 193/2
<b>accounting [1]</b>	13/11 31/10 31/16	<b>admit [11]</b> 18/13
218/20	33/10 34/25 35/3	24/6 26/20 32/7
<b>accounts [1]</b>	42/23 44/4 44/7	36/6 38/18 43/3
148/13	44/8 44/11 44/12	45/12 60/12 83/23
<b>accurate [4]</b>	112/6 112/21	88/21
118/22 118/23	112/25 113/9	<b>admits [1]</b> 139/4
139/1 139/8	113/14 113/15	<b>admitted [32]</b> 2/10
<b>achieve [2]</b> 231/1	113/18 113/21	6/19 6/20 18/16
239/3	113/25 114/18	21/23 24/8 26/23
<b>acknowledged [1]</b>	115/14 115/16	32/23 36/15 38/21
	116/12 116/17	43/6 45/21 47/9

<b>A</b>	237/14 238/11	173/11 173/23
USCA11 Case: 22-11150 Document: 83-13 Date Filed: 11/30/2022 Page: 58 of 254	242/8	174/1 174/9 179/7
<b>admitted...</b> [19]	<b>afternoon</b> [6]	181/20 184/11
47/11 54/3 60/15	91/22 93/3 93/4	189/21 192/3
60/22 75/2 77/19	123/2 204/22 214/2	193/11 194/8
78/22 78/24 81/19	<b>afterwards</b> [1]	<b>agreed</b> [3] 21/8
84/1 86/13 88/24	39/16	29/24 243/4
122/3 151/14	<b>again</b> [37] 16/3	<b>ahead</b> [9] 3/2
171/19 182/21	23/5 37/25 46/3	24/14 67/2 68/6
188/4 243/4 243/10	54/14 75/19 85/15	72/11 129/12 225/9
<b>admonishment</b> [4]	103/13 108/2	239/21 239/23
70/19 70/25 72/17	108/18 111/10	<b>alive</b> [1] 185/19
72/25	114/3 115/14 120/6	<b>AlixPartners</b> [8]
<b>advertise</b> [1]	124/24 130/14	174/18 215/10
118/23	136/18 136/23	215/11 216/5 216/6
<b>advice</b> [1] 19/22	139/25 140/24	216/13 216/16
<b>advise</b> [3] 12/20	141/23 142/15	216/17
13/12 240/3	142/15 144/5	<b>all</b> [208] 5/8 5/15
<b>advised</b> [1] 242/4	162/12 168/1 168/8	7/6 7/12 7/14 7/16
<b>advising</b> [1] 12/14	168/22 170/25	11/9 11/25 12/5
<b>advisor</b> [1] 190/24	173/2 174/7 186/9	12/20 13/6 14/10
<b>affect</b> [6] 67/16	191/18 193/25	14/15 16/14 23/9
173/24 174/2	204/22 211/19	26/4 29/7 35/11
174/10 174/11	231/2	37/24 38/24 44/6
174/12	<b>against</b> [1] 70/2	46/8 47/17 49/12
<b>affected</b> [1] 174/4	<b>agencies</b> [1] 216/1	50/2 52/3 54/2
<b>affidavit</b> [3]	<b>ago</b> [2] 6/4 31/6	54/8 55/15 55/21
53/15 53/18 53/22	<b>agree</b> [52] 33/24	58/18 58/21 59/7
<b>affidavits</b> [2]	95/19 96/8 99/17	59/13 60/22 61/10
50/17 105/18	106/14 109/6	63/1 65/18 66/9
<b>affordable</b> [1]	109/11 109/18	66/25 68/3 68/6
51/15	110/3 110/5 110/8	68/8 68/17 71/21
<b>afield</b> [1] 152/10	126/2 126/5 127/20	72/12 73/3 74/7
<b>after</b> [27] 24/20	129/25 130/22	74/11 74/18 75/8
27/23 30/12 39/23	130/24 131/2 131/4	76/10 79/3 81/17
47/21 84/15 88/12	131/5 131/8 133/15	81/21 81/25 82/14
122/1 128/6 132/9	133/18 133/21	84/6 84/6 85/7
153/14 158/12	134/9 134/10	85/7 85/13 85/22
163/18 193/23	134/12 135/1 135/5	87/8 87/9 87/24
200/15 203/19	135/18 138/22	88/9 89/2 89/5
209/8 209/16	139/2 145/3 152/25	89/16 91/5 91/12
211/14 216/3	153/6 169/2 169/16	92/15 92/19 92/24
226/23 236/1	170/14 170/23	94/1 94/10 98/6
236/22 237/7	172/22 173/9	98/9 98/18 102/3

<b>A</b>	211/25 212/9	105/2 108/6 110/3
USCA11 Case: 22-11150 Document: 55-13 Date Filed: 11/30/2022 Page: 54 of 254	212/16 212/25	110/19 122/13
<b>all... [127]</b>	213/6 213/9 213/15	125/2 127/19 137/4
102/17 103/17	213/24 214/2 214/3	146/23 148/20
103/24 104/4	217/13 218/13	177/12 181/12
106/13 106/15	219/6 219/7 219/20	182/8 182/10 202/5
106/17 108/14	220/17 221/15	214/8 215/25
108/19 108/24	224/8 224/12 225/2	216/10 216/16
113/5 116/20 117/9	225/6 225/19	217/9 217/13
119/8 119/15	226/21 235/21	217/15 218/19
121/12 121/21	236/17 239/6	226/8 230/10
122/5 122/10	239/21 240/1 240/4	231/13 231/15
122/13 124/7	240/14 242/2 242/6	232/22 234/5 241/5
124/19 125/9	242/9 242/13	<b>alteration [8]</b>
129/25 130/10	243/14	5/14 106/18 109/4
131/25 132/2 133/1	<b>allow [13]</b> 26/7	109/7 176/20
133/8 134/23	77/10 98/23 99/2	183/23 184/2 184/7
138/11 140/11	128/3 136/14 143/7	<b>altered [7]</b> 4/2
141/10 141/11	148/1 148/18	7/21 106/8 109/3
142/24 143/5 145/3	157/11 194/13	111/19 112/3
145/24 146/8	207/6 211/8	146/21
146/14 147/14	<b>allowed [1]</b> 11/10	<b>altering [1]</b>
152/23 153/2 153/6	<b>allowing [1]</b> 5/4	134/11
155/5 155/14	<b>almost [1]</b> 108/19	<b>although [1]</b>
156/12 158/10	<b>alone [1]</b> 232/1	207/15
160/23 163/25	<b>along [1]</b> 242/7	<b>always [3]</b> 96/10
164/5 166/12 167/6	<b>alpha [3]</b> 180/18	119/17 232/16
167/23 169/15	180/25 181/13	<b>am [27]</b> 26/6 46/6
170/11 171/2	<b>already [19]</b> 10/24	46/7 53/5 68/24
171/14 175/11	16/2 21/23 28/6	69/3 69/4 73/10
177/22 178/17	41/9 47/8 53/16	73/10 100/15
179/21 180/1	81/19 131/21	100/23 104/14
180/15 181/10	157/10 159/6	107/4 134/2 142/9
182/7 184/6 184/20	159/16 161/4	154/15 160/3
184/23 185/1 185/5	170/11 191/7	167/10 176/21
185/7 187/12	200/23 211/17	180/17 192/13
187/17 187/25	220/6 240/17	207/23 214/14
189/1 191/7 191/24	<b>also [48]</b> 3/22 4/1	216/19 233/5
193/19 194/4	4/20 6/10 14/8	234/19 242/25
194/23 195/4	22/24 28/6 30/17	<b>AMANDA [1]</b> 1/20
200/15 200/16	31/5 47/4 58/13	<b>Amended [4]</b> 164/7
202/2 202/12 203/9	76/21 78/11 89/7	164/10 165/4 166/8
204/17 207/5 207/5	91/13 100/24	<b>AMERICA [1]</b> 244/1
207/18 209/10	103/25 104/23	<b>American [3]</b>



<b>A</b>	128/19 129/10	9/20 15/16 17/7
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 55 of 254	167/1 174/13	21/19 26/2 39/18
<b>American...</b> [3]	<b>Andreas</b> [1] 100/3	41/6 42/11 44/17
128/16 172/13	<b>Andreou</b> [4] 235/9	53/6 53/6 53/9
172/14	235/11 235/12	54/14 54/24 55/2
<b>among</b> [3] 56/18	235/14	55/3 55/6 57/10
139/16 179/14	<b>ANDRES</b> [1] 1/19	64/21 67/18 69/15
<b>amount</b> [6] 12/2	<b>ANDREW</b> [1] 1/16	71/22 73/12 77/15
67/14 123/15	<b>announce</b> [1] 122/7	82/10 84/20 85/24
123/16 123/18	<b>annoying</b> [1] 89/16	86/9 91/5 91/22
124/12	<b>anonymous</b> [1]	92/7 97/18 97/21
<b>amounts</b> [1] 103/13	93/13	101/2 102/20 104/6
<b>analogy</b> [2] 33/16	<b>another</b> [43] 7/6	104/10 104/12
65/4	16/5 45/1 59/18	104/13 104/18
<b>analysis</b> [33] 3/23	69/2 79/12 80/10	104/21 104/24
15/13 17/25 18/11	81/9 81/16 96/22	106/18 106/20
18/24 20/19 24/3	97/1 98/25 121/4	106/24 107/2 107/2
26/16 27/12 27/17	123/16 130/18	107/5 107/10 110/9
32/4 38/14 39/3	134/20 137/8 143/5	116/18 122/13
51/14 83/18 87/25	143/9 143/22 144/2	123/1 124/10
97/19 97/22 97/25	144/12 147/5	124/11 124/24
118/3 118/17 121/8	162/17 174/2 174/5	124/24 128/25
124/17 129/9	174/10 174/11	129/13 134/23
135/11 159/16	178/25 179/7	137/3 139/15
173/16 173/18	179/15 198/3 198/7	139/15 140/23
176/2 183/2 197/6	198/10 213/21	142/17 142/19
233/9 233/12	237/19 237/21	148/7 148/13
<b>analyze</b> [11] 20/7	237/23 237/25	148/14 148/16
20/10 23/20 42/11	238/2 238/4 238/6	148/16 148/20
166/15 198/13	238/8	148/22 159/1 159/5
201/12 201/25	<b>answer</b> [9] 16/14	160/9 162/3 162/10
202/14 203/10	68/18 111/6 119/6	162/15 162/18
203/20	119/8 129/13	162/23 165/7
<b>analyzed</b> [14]	136/19 156/7	170/10 171/17
15/15 26/17 107/17	168/21	175/2 176/12
133/17 177/17	<b>answered</b> [3] 157/9	176/14 176/15
186/17 192/6	194/12 208/18	176/19 177/4 177/7
193/25 201/19	<b>Antonopoulos</b> [5]	178/3 178/5 178/5
201/23 202/18	100/3 218/10	180/2 180/20
203/15 209/5	224/19 224/24	183/18 186/10
230/18	224/25	189/10 197/6
<b>analyzing</b> [9]	<b>Antonopoulos'</b> [1]	197/13 198/25
25/21 37/19 46/20	224/21	200/7 200/9 200/14
124/20 124/21	<b>any</b> [136] 8/4 8/12	200/18 200/21

<b>A</b>	144/10	152/14 230/7
USCA11 Case: 22-11150 Document: 3-15 Date Filed: 11/30/22 Page: 56 of 254	11/10	230/17
<b>any...</b> [27] 201/22	12/2 41/3 57/10	<b>April</b> [13] 11/16
204/17 205/3 205/7	76/21 79/10 80/11	39/15 39/23 42/1
206/23 207/3	139/21 143/8	42/2 43/21 43/22
212/12 212/23	170/24 183/19	82/3 84/14 133/9
212/25 214/24	187/17 192/14	133/10 208/25
216/14 222/12	211/11 220/22	209/7
231/14 231/22	<b>Appearances</b> [1]	<b>archived</b> [1] 221/6
232/10 232/21	1/12	<b>are</b> [229] 3/6 4/6
233/24 234/9	<b>appeared</b> [2] 156/5	4/6 5/13 5/13 5/15
234/13 235/5 235/5	156/9	7/3 8/11 8/20 9/4
235/22 236/1	<b>appears</b> [15] 27/8	9/10 9/10 9/11
238/10 239/13	29/8 37/3 56/19	9/13 9/17 10/6
241/1 242/9	57/1 57/23 66/9	10/12 10/18 10/18
<b>anybody</b> [3] 125/20	76/14 80/10 86/4	10/19 10/21 11/6
134/23 230/10	89/10 108/23 156/4	11/18 11/20 12/12
<b>anyone</b> [9] 15/18	192/16 236/15	12/17 13/11 14/20
73/23 110/10	<b>appliance</b> [1] 97/2	16/4 16/7 17/7
145/10 186/19	<b>applicable</b> [1]	17/9 17/11 17/11
205/4 212/4 239/12	8/19	21/9 22/21 22/22
239/12	<b>application</b> [5]	22/23 23/2 23/12
<b>anything</b> [38] 7/12	28/13 30/9 30/24	23/12 26/1 26/5
7/14 7/23 11/9	33/10 235/3	28/19 29/17 29/19
32/18 39/12 48/10	<b>applied</b> [4] 62/24	29/21 29/23 33/5
53/8 69/3 70/24	93/12 160/5 181/12	37/2 37/10 39/20
74/4 76/10 77/3	<b>apply</b> [2] 94/2	41/24 42/18 44/10
78/7 78/10 80/17	160/6	48/21 51/12 51/24
82/4 83/2 85/2	<b>Appointment</b> [1]	52/1 52/5 53/9
87/24 88/2 89/11	43/18	55/7 56/6 56/7
104/15 104/25	<b>appreciate</b> [2]	56/24 57/17 60/24
113/2 113/9 113/17	16/25 220/13	61/7 67/12 67/13
116/17 121/3	<b>approach</b> [1] 12/21	67/13 67/15 68/1
125/20 136/20	<b>appropriate</b> [11]	69/9 69/12 70/12
180/3 186/15	51/12 53/12 122/14	70/12 70/12 74/22
190/25 198/24	122/23 134/25	75/9 76/4 79/9
234/17 235/14	184/18 221/15	79/25 82/9 85/15
243/14	225/10 240/21	85/16 85/24 92/8
<b>anyway</b> [1] 129/17	242/25 243/2	92/8 92/19 93/18
<b>anywhere</b> [1]	<b>approximate</b> [4]	95/21 100/18 101/4
120/15	42/23 115/15	102/23 104/5 104/9
<b>apologize</b> [2]	152/16 156/14	104/12 105/7
46/16 228/16	<b>approximately</b> [6]	106/14 106/17
<b>apparently</b> [1]	35/11 39/16 92/3	107/2 107/3 107/14



<b>A</b>	217/5 217/16 218/4	19/21 21/6 21/8
USCA11 Case: 22-11150 Document: 53-23 Date Filed: 11/30/2022 Page: 57 of 254	218/5 223/18	22/16 25/6 25/17
are... [125]	108/5	
108/9 109/8 110/15	223/19 223/20	26/5 27/22 28/20
117/18 117/21	223/22 224/15	29/6 29/16 29/17
117/23 119/19	228/12 231/10	29/22 29/22 29/24
121/22 121/24	231/11 231/20	30/5 33/10 33/10
125/11 125/23	233/3 233/15	37/17 37/19 37/20
129/12 129/25	234/18 237/7	40/16 45/15 45/15
130/12 130/23	238/10 238/14	46/7 46/7 46/9
132/4 133/21 136/4	239/22 240/4 241/1	46/15 50/9 52/6
137/12 138/7 139/5	241/19 241/22	52/7 52/20 54/3
139/7 139/12 140/4	241/24 242/9	54/19 54/24 55/23
143/22 144/21	242/24	56/14 56/17 57/3
145/7 147/3 147/10	<b>area [1]</b> 218/12	57/4 58/9 58/14
147/19 147/19	<b>areas [1]</b> 147/16	61/4 61/21 61/22
147/23 148/4	<b>aren't [1]</b> 176/19	62/8 62/14 65/24
148/24 149/15	<b>argued [1]</b> 53/11	69/15 70/5 70/5
150/24 152/2 152/3	<b>arguing [2]</b> 67/6	71/8 71/8 71/10
152/18 153/17	71/11	71/10 72/17 73/13
162/15 165/2	<b>argument [1]</b> 10/25	79/15 79/17 79/17
165/16 166/7	<b>arguments [1]</b>	79/18 79/25 81/5
166/19 169/5 171/2	51/17	81/25 82/8 82/9
171/2 173/3 176/10	<b>Armory [1]</b> 98/24	82/12 84/11 86/13
177/13 177/20	<b>around [7]</b> 44/18	87/22 94/11 94/23
177/20 177/21	67/15 117/9 205/17	96/8 96/15 97/6
177/22 183/22	209/7 220/4 225/23	102/6 102/9 102/12
184/4 185/1 189/13	<b>arrange [1]</b> 19/19	103/20 105/7 106/2
190/23 191/11	<b>arrangement [1]</b>	106/4 106/7 106/17
191/25 192/12	87/15	106/20 108/17
193/7 194/14	<b>arrive [1]</b> 230/17	108/17 111/4 111/7
195/21 196/7	<b>arrived [1]</b> 107/20	114/5 114/5 116/25
199/21 199/23	<b>arriving [1]</b>	116/25 117/12
201/16 202/2 203/3	233/25	118/22 118/23
203/4 203/5 203/17	<b>artifact [4]</b> 169/3	119/25 123/15
203/17 203/18	169/17 192/5	124/8 128/7 131/16
203/22 203/25	194/10	137/2 138/7 138/13
204/2 204/2 204/5	<b>artifacts [6]</b>	142/9 143/20 153/4
204/10 205/7	108/24 117/11	156/2 158/13
207/12 207/20	155/15 169/17	158/24 159/11
208/9 208/12 210/4	175/17 176/10	159/13 162/23
210/4 212/23 213/9	<b>as [184]</b> 1/3 3/23	166/20 166/20
214/13 214/23	4/15 9/7 9/16 10/5	167/11 169/10
215/2 215/5 216/18	11/5 11/6 11/22	170/23 173/2
	16/21 19/5 19/19	176/17 176/20

<b>A</b>	173/18 178/10	70/2 87/10 87/13
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/03/22 Page: 58 of 254	180/1 182/19	<b>assign</b> [1] 137/25
<b>as...</b> [51] 176/22	182/20 189/10	<b>assigned</b> [1]
177/4 177/15	190/14 191/25	137/12
177/19 178/15	194/25 195/15	<b>assist</b> [1] 216/9
180/22 180/25	197/19 198/7	<b>associate</b> [1]
182/7 182/9 182/9	203/24 212/1 212/5	31/17
184/6 185/16	236/16 240/7	<b>associated</b> [37]
185/25 185/25	242/25	19/1 19/15 21/17
191/19 193/13	<b>asked</b> [41] 68/14	27/18 30/24 31/10
194/11 195/11	99/20 110/13	33/5 34/7 34/9
195/21 196/5 196/6	110/20 110/23	34/15 34/25 35/3
201/1 203/5 212/10	111/2 111/3 111/4	37/19 39/21 49/19
212/19 213/19	111/7 111/12	61/22 62/4 62/25
214/23 215/2 215/5	114/18 118/25	63/2 63/6 63/19
215/12 216/17	123/8 123/14	63/25 64/4 87/9
217/13 223/5 223/6	150/25 151/1	88/19 89/19 91/11
223/22 224/21	154/14 155/22	113/21 115/16
225/17 231/7 231/7	155/23 156/16	125/24 130/12
231/18 231/23	156/18 157/9 158/6	130/15 131/1
232/1 232/21	161/7 166/17	145/11 197/6 206/1
232/23 233/13	178/19 194/12	227/9
233/15 233/21	198/5 198/13 200/8	<b>associating</b> [1]
234/3 234/4 241/25	200/14 200/17	130/11
242/1	200/23 201/12	<b>association</b> [1]
<b>aside</b> [5] 113/11	202/14 203/10	115/3
116/11 130/16	204/23 206/4	<b>assume</b> [12] 102/6
147/14 186/19	208/18 211/19	102/9 118/7 132/11
<b>ask</b> [58] 37/8	242/14	135/18 143/20
52/11 52/25 53/13	<b>asking</b> [18] 5/10	168/5 168/25
66/24 71/24 72/5	8/17 52/2 114/20	168/25 190/19
72/8 78/7 107/24	117/23 119/18	193/19 193/21
117/14 118/2 120/9	156/20 157/5 158/2	<b>assuming</b> [5] 26/6
120/25 123/25	160/21 162/7	172/12 172/14
124/3 124/13	166/23 168/9	194/15 200/12
124/16 125/19	193/21 200/9	<b>assumption</b> [1]
129/2 131/13 132/4	225/12 228/12	168/10
132/24 135/25	228/14	<b>assumptions</b> [1]
136/18 136/18	<b>aspect</b> [1] 4/4	132/7
144/7 146/9 147/6	<b>asserted</b> [2] 32/20	<b>ATO</b> [1] 175/6
148/24 149/1 152/1	36/10	<b>attach</b> [1] 160/2
157/3 162/4 163/17	<b>asserting</b> [1]	<b>attached</b> [9] 61/21
166/3 167/14 168/5	208/22	63/16 84/22 87/16
168/12 171/9	<b>assets</b> [4] 37/10	117/8 171/10

<p><b>A</b></p> <p>USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 59 of 254</p> <p>attached... [3]  171/11 175/19  236/14</p> <p>attaching [2] 81/1  171/22</p> <p>attachment [2]  171/10 171/15</p> <p>attachments [4]  56/8 86/3 86/4  86/6</p> <p>attempt [3] 152/22  153/2 153/6</p> <p>attempted [3] 52/7  185/20 185/21</p> <p>attempts [2] 53/6  53/7</p> <p>attended [1] 97/16</p> <p>attends [1] 70/8</p> <p>attention [3] 5/9  67/4 187/9</p> <p>attorneys [4]  212/7 212/25 240/8  242/25</p> <p>audience [1]  103/22</p> <p>August [1] 103/11</p> <p>Australia [43]  21/5 37/10 39/21  39/24 44/5 44/13  44/15 63/7 114/25  115/10 115/17  115/18 115/19  119/12 125/25  126/7 126/10  126/25 127/1 127/5  128/11 128/13  128/15 130/12  140/5 140/13  140/14 141/5  141/21 142/2  142/10 145/4 145/5  145/11 163/22</p>	<p>163/24 175/7  189/15 206/15  207/12 207/13  207/21 207/22</p> <p>Australian [2]  175/3 189/11</p> <p>authentic [16]  30/1 37/13 54/20  55/7 55/17 55/19  81/23 85/3 86/6  86/10 87/20 92/8  110/15 171/23  180/5 221/7</p> <p>authenticity [14]  18/3 54/12 105/4  105/5 105/8 108/4  108/5 161/25 186/9  208/13 208/16  209/17 209/24  210/7</p> <p>author [1] 89/7</p> <p>authorized [3]  151/5 152/2 152/3</p> <p>automatically [1]  126/3</p> <p>automation [1]  82/11</p> <p>availability [1]  202/10</p> <p>available [6] 13/3  65/25 111/17  203/22 230/11  231/20</p> <p>Avenue [2] 1/24  244/18</p> <p>avoid [1] 93/7</p> <p>aware [27] 12/20  29/22 70/5 101/13  101/18 115/20  115/22 136/4 140/4  148/9 149/15  152/18 165/2 166/7  169/25 176/19  178/4 180/15</p>	<p>189/13 191/11  191/25 203/17</p> <p>205/7 207/12  207/20 208/12  238/10</p> <p>away [6] 17/5  115/13 116/13  140/14 207/13  207/22</p> <p><b>B</b></p> <p>bachelor's [1]  215/16</p> <p>back [58] 14/20  15/21 18/5 24/10  26/25 30/23 32/25  36/17 37/11 38/24  46/10 47/14 53/14  59/10 60/19 64/23  66/9 66/14 68/3  68/6 74/11 74/13  75/9 87/8 87/25  89/2 113/10 116/7  118/3 118/3 119/14  121/13 121/16  121/18 123/24  125/9 125/12  125/17 126/21  127/4 129/2 129/3  130/14 130/17  133/2 134/10  135/14 137/1  148/25 157/8  161/16 175/15  185/7 187/13  191/17 204/25  207/9 229/6</p> <p>background [3]  215/15 233/23  234/22</p> <p>backwards [1]  220/17</p> <p>bad [4] 44/22 46/9  51/19 79/16</p>
--	--	--

<b>B</b>	27/8 29/8 32/19	195/20 196/21
USCA11 Case: 22-11150 Document: 53-33 Date Filed: 11/30/22 Page: 60 of 254	32/23 33/21 36/22	197/20 199/22
<b>Bagnoo</b> [2] 115/24	33/25 36/14 37/9	213/25 214/4
116/1	45/21 46/10 47/9	214/19 217/23
<b>balance</b> [3] 4/5	51/18 52/9 55/7	219/1 221/5 221/7
5/7 6/22	65/7 66/16 66/18	221/22 223/12
<b>balancing</b> [2] 3/24	67/7 67/17 70/13	225/14 228/5 229/9
4/4	71/11 71/22 72/2	235/11 236/7
<b>ballpark</b> [1] 160/3	74/12 77/25 78/22	236/12 236/15
<b>banking</b> [1] 82/11	79/14 80/10 80/11	239/9 240/5 240/6
<b>banning</b> [1] 5/22	86/17 89/25 94/12	240/18 240/21
<b>barred</b> [1] 4/23	95/23 96/3 96/3	241/22 242/14
<b>based</b> [18] 80/4	97/3 98/18 108/8	242/15 243/2 243/9
97/3 107/7 126/14	108/17 113/18	243/11 243/18
128/11 128/12	116/6 116/11	<b>BEACH</b> [1] 1/2
132/21 176/22	118/11 119/24	<b>bear</b> [2] 5/21
186/9 189/23 192/5	120/21 122/6 122/8	206/24
215/25 220/3	122/18 123/4 125/3	<b>bears</b> [1] 4/22
220/22 224/5 224/6	125/10 126/3 126/4	<b>because</b> [53] 3/11
231/21 235/21	127/10 127/12	4/5 5/15 6/17 9/16
<b>bases</b> [1] 125/22	128/22 130/23	10/12 10/22 11/10
<b>basically</b> [2] 9/3	132/7 134/24 135/7	12/1 12/15 13/7
48/21	135/25 136/24	13/21 33/22 40/22
<b>basing</b> [1] 108/24	139/9 139/16	45/17 53/13 59/15
<b>basis</b> [8] 30/6	139/21 142/1 142/7	62/13 68/25 69/18
52/4 114/9 131/18	142/25 143/7	70/7 71/12 71/25
155/10 168/12	144/25 147/23	72/14 75/9 94/8
169/4 228/5	151/20 152/8	97/15 107/24
<b>Bates</b> [9] 53/4	152/22 155/15	109/11 115/14
90/3 90/8 132/12	159/11 164/11	118/2 125/24
132/14 132/22	164/13 169/1	126/20 127/25
161/11 163/17	169/17 169/20	130/11 130/19
167/17	170/12 170/14	132/23 142/10
<b>BB</b> [1] 1/2	172/23 173/25	154/20 155/3 159/6
<b>be</b> [173] 3/11 4/13	174/4 175/17 176/6	159/18 159/25
4/13 4/16 5/16	179/1 179/4 181/8	161/9 162/24 167/4
6/10 6/16 7/4 7/18	183/16 183/19	172/23 173/13
8/4 8/15 8/18 8/19	183/25 185/8	177/7 180/9 184/18
8/20 9/8 11/2	185/25 188/4 188/8	230/9 235/18
12/13 12/17 12/18	188/23 189/11	<b>become</b> [2] 102/18
13/4 13/4 13/6	190/9 192/5 192/14	216/20
13/13 14/19 17/2	192/16 193/12	<b>becomes</b> [1] 16/8
19/22 21/5 21/11	193/23 194/9	<b>been</b> [72] 3/19
23/9 26/4 26/6	194/25 195/15	4/23 8/25 10/13

<b>B</b>	154/15 159/9 159/9	41/15 43/2 47/8
USCA11 Case: 22-11150 Document: 83-13 Date Filed: 11/30/2022 Page: 61 of 254	173/23 173/6 173/9	55/10 56/7 58/13
been... [68] 10/24	173/17 174/20	67/6 70/3 71/10
11/23 13/17 20/21	177/24 180/13	87/3 89/24 94/3
21/23 30/8 32/10	180/16 185/6	98/2 103/9 103/24
40/8 40/10 40/19	199/18 209/10	104/3 105/11
57/3 67/19 67/21	211/15 220/18	105/16 106/16
76/14 76/21 76/22	220/22 224/9 225/1	107/21 109/25
77/1 77/2 77/5	230/16 241/14	110/2 110/13
77/19 81/8 81/16	<b>began</b> [3] 220/1	110/16 112/7
81/19 86/4 102/22	220/22 225/1	113/19 114/3
103/17 103/21	<b>beginning</b> [3]	115/11 119/17
103/23 104/2 109/3	14/21 75/21 159/21	122/1 122/17
109/9 109/24	<b>begun</b> [1] 220/4	123/21 126/14
123/19 125/23	<b>behalf</b> [10] 2/4	128/24 130/18
128/18 132/3	2/7 123/19 164/1	131/21 132/21
144/23 146/24	175/12 185/3 213/2	133/14 134/5 138/6
148/16 148/21	213/4 213/18	138/10 138/16
149/23 150/2	240/19	139/18 142/14
152/14 152/25	<b>behind</b> [6] 4/24	142/19 145/19
154/1 157/21 161/4	46/9 99/20 106/18	146/16 146/20
164/14 165/17	113/2 113/25	146/25 147/2 147/3
183/19 184/7	<b>being</b> [28] 5/9	148/18 149/2 151/5
184/10 194/17	10/4 32/13 32/20	153/16 154/18
201/16 203/5 206/7	36/9 36/10 36/23	156/14 156/18
208/24 211/11	46/6 59/21 82/12	156/19 157/9
216/22 229/23	96/10 102/1 111/7	157/23 158/16
229/24 230/15	115/16 134/10	158/24 158/25
233/10 233/17	134/13 141/24	160/17 160/25
240/17 240/22	167/11 185/19	161/4 161/23 164/8
242/14 243/4	211/19 215/5 215/7	165/22 170/11
<b>before</b> [54] 1/10	215/11 217/14	172/17 172/25
10/17 13/16 14/17	218/17 223/9 231/8	174/12 175/24
15/23 17/5 47/25	231/9	179/25 181/15
61/4 61/6 72/15	<b>beings</b> [1] 128/7	182/22 183/8
72/19 72/21 74/10	<b>belabor</b> [1] 96/14	185/23 186/1 186/8
74/18 74/18 78/5	<b>belief</b> [1] 108/15	190/24 193/22
82/6 88/9 102/14	<b>believe</b> [122] 7/22	193/25 196/14
103/5 104/2 109/17	8/4 8/15 8/24 9/17	197/4 197/20 199/3
119/15 120/17	9/24 10/8 10/11	200/6 202/5 204/10
122/2 122/7 124/25	16/1 19/25 21/22	205/23 206/4 208/9
125/8 132/15	24/25 25/6 28/3	210/18 220/6 225/3
133/10 140/6	28/6 29/6 34/22	237/9 239/23
153/10 153/19	35/9 41/9 41/14	241/20 241/21

<b>B</b>	153/4 165/11	219/10 219/11
<b>believed</b> [1]	174/24 178/12	219/23 219/25
175/20	178/14 178/16	220/21 221/14
<b>believes</b> [1] 11/20	187/20 200/15	222/19 223/6
<b>believing</b> [1]	200/18 200/19	223/25 224/15
125/22	203/2 203/18	224/22 226/3 226/5
<b>belong</b> [1] 197/15	205/25 207/3 210/2	226/7 226/23 227/1
<b>belonged</b> [4]	211/2 214/24	227/9 227/17
197/14 197/24	<b>beyond</b> [4] 70/21	229/10 229/15
198/11 198/25	99/4 117/7 210/20	229/22 229/25
<b>belonging</b> [1]	<b>big</b> [2] 112/19	230/3 230/15
151/1	115/21	230/18 231/4 231/5
<b>below</b> [1] 196/18	<b>bigger</b> [4] 156/21	231/21 231/23
<b>benefit</b> [1] 51/14	156/22 157/7	231/24 232/4
<b>Berkeley</b> [1]	226/14	232/10 232/13
102/22	<b>bill</b> [1] 70/1	232/20 232/24
<b>besides</b> [3] 48/9	<b>billed</b> [1] 103/12	<b>Bitcoins</b> [1] 197/7
91/21 130/1	<b>billings</b> [1] 123/9	<b>bitcointalk.org</b> [2]
<b>best</b> [14] 98/8	<b>billionaire</b> [1]	228/21 228/24
98/21 101/1 103/16	69/25	<b>Bitmessage</b> [25]
107/22 108/16	<b>biology</b> [1] 94/9	28/14 28/15 28/15
111/3 152/16	<b>Biscayne</b> [1] 1/14	28/16 28/17 28/19
153/20 154/24	<b>bit</b> [7] 13/12 15/2	28/20 30/9 30/11
155/2 178/18	44/6 129/1 201/16	30/15 30/16 30/21
185/24 232/16	215/14 215/20	31/2 31/9 31/10
<b>beta</b> [3] 180/18	<b>Bitcoin</b> [79] 21/7	31/12 31/14 31/19
180/25 181/13	22/22 22/23 22/24	33/4 33/9 33/18
<b>BETH</b> [1] 1/10	23/2 23/12 26/5	33/19 33/23 34/3
<b>better</b> [6] 13/20	86/10 87/9 87/15	35/1
14/4 14/5 15/6	93/8 98/12 99/11	<b>Bitmessages</b> [5]
80/11 221/24	104/16 104/19	28/23 33/11 34/15
<b>better-known</b> [1]	104/22 195/21	34/22 184/16
221/24	196/7 196/21	<b>block</b> [3] 22/25
<b>between</b> [44] 17/4	196/22 196/24	230/11 230/14
18/21 20/17 21/6	196/24 197/11	<b>blockchain</b> [27]
24/13 25/12 27/16	199/10 200/17	215/25 216/2
28/17 28/19 28/23	214/17 216/11	216/12 216/24
39/2 41/23 49/20	216/18 216/20	216/25 217/5
57/8 58/19 62/2	216/21 216/24	217/19 218/5
65/2 65/19 84/8	216/24 217/2 217/5	218/22 219/10
85/24 86/18 87/18	217/6 217/7 217/9	219/11 219/25
93/6 104/6 132/5	217/13 217/14	220/21 222/19
135/16 152/18	217/16 217/19	223/7 223/25
	218/2 218/5 218/22	224/15 224/22



<b>B</b>	17/13 17/15 18/23	<b>business [1]</b> 93/6
USCA11 Case: 22-11150 Document: 43-29 Date Filed: 11/30/22 Page: 63 of 254	18/24 29/12 89/25	<b>button [2]</b> 96/17
<b>blockchain...</b> [9]	163/10 163/11	182/5
226/4 227/1 227/17	186/14 210/14	
229/10 229/15	<b>Boulevard [1]</b> 1/21	<b>C</b>
229/22 230/10	<b>box [6]</b> 19/13	<b>calculating [1]</b>
230/19 232/4	23/18 25/22 40/6	10/6
<b>blockchain-based</b>	79/21 84/12	<b>calculations [1]</b>
<b>[1]</b> 215/25	<b>boxes [4]</b> 27/4	11/21
<b>blockchain.info [1]</b>	43/12 47/19 49/15	<b>Calibri [3]</b> 89/21
23/1	<b>break [9]</b> 30/19	180/22 180/24
<b>blocker [1]</b> 159/3	40/12 66/17 67/25	<b>call [7]</b> 3/1 95/16
<b>blocks [4]</b> 33/10	68/1 74/18 74/19	111/9 116/23
230/12 230/14	184/18 193/16	144/18 231/11
230/16	<b>BRENNER [1]</b> 1/16	231/15
<b>BLOOM [1]</b> 1/10	<b>BRG [5]</b> 102/19	<b>called [29]</b> 23/1
<b>blow [8]</b> 19/13	102/20 102/22	28/13 40/5 42/22
20/25 22/10 23/4	102/25 103/2	56/8 58/10 64/10
29/11 37/5 163/10	<b>brief [1]</b> 123/17	65/22 89/21 94/13
210/13	<b>bring [15]</b> 12/6	94/19 94/19 96/5
<b>blown [1]</b> 132/8	14/15 15/21 16/10	98/24 100/13
<b>blowup [1]</b> 20/8	17/18 47/4 74/7	106/11 132/12
<b>blue [1]</b> 49/16	78/13 88/11 123/6	137/5 141/17
<b>board [6]</b> 43/24	125/7 141/2 185/5	149/16 151/6
224/10 225/12	226/15 240/8	158/23 180/18
225/13 225/24	<b>Brisbane [6]</b> 140/4	207/2 215/10
226/13	140/13 140/16	230/11 230/14
<b>boards [1]</b> 223/1	207/12 207/15	233/3 234/18
<b>BOIES [1]</b> 1/15	207/21	<b>calling [2]</b> 12/13
<b>Bond [1]</b> 23/9	<b>British [1]</b> 128/15	213/25
<b>books [1]</b> 176/19	<b>Brits [1]</b> 26/7	<b>calls [5]</b> 156/24
<b>bore [1]</b> 178/6	<b>broken [1]</b> 96/19	166/22 169/6 181/2
<b>both [26]</b> 3/12	<b>brought [4]</b> 5/9	193/14
3/20 3/21 4/11	98/14 99/6 232/5	<b>came [12]</b> 32/16
4/21 5/15 10/19	<b>bug [1]</b> 232/17	34/23 62/4 62/6
14/7 26/17 37/21	<b>bugs [3]</b> 231/14	68/25 117/18
47/19 47/23 48/12	232/10 232/12	118/19 129/14
48/18 69/24 75/16	<b>building [2]</b>	132/16 133/15
151/7 153/7 164/14	234/21 239/9	163/24 175/12
165/22 177/13	<b>built [1]</b> 234/21	<b>can [206]</b> 3/6 6/18
177/17 179/17	<b>bunch [5]</b> 40/20	9/8 11/5 14/7 14/8
216/15 216/15	40/23 132/9 203/8	14/25 15/21 16/9
216/22	236/23	16/13 16/16 17/10
<b>bottom [11]</b> 17/12	<b>burden [1]</b> 51/11	17/20 18/5 18/6

<b>C</b>	147/7 150/1 151/22	<b>capital [1]</b> 82/10
USCA11 Case: 22-11150 Document: 83-15 Date Filed: 11/30/22 Page: 64 of 254	160/2 160/6 160/8	<b>care [1]</b> 87/14
<b>can...</b> [191] 18/19	162/20 163/10	<b>carried [1]</b> 51/11
19/13 20/8 20/13	165/8 167/11	<b>CAS [1]</b> 237/15
20/17 22/9 22/10	167/14 167/14	<b>case [81]</b> 1/2 6/11
23/4 23/9 23/23	168/6 170/11	6/18 9/8 15/17
27/15 30/20 31/14	170/14 170/19	50/9 50/11 50/21
31/16 31/17 31/19	170/20 173/24	51/1 51/16 52/2
31/21 31/22 33/7	174/2 174/4 174/10	52/5 53/6 53/6
33/11 33/16 33/18	174/11 174/12	67/17 69/2 69/23
33/25 34/7 35/17	183/6 186/23 187/5	70/2 70/11 70/15
35/20 35/21 37/25	188/13 202/23	73/23 91/23 92/1
38/1 38/6 38/24	205/16 205/24	97/24 98/9 98/12
40/4 40/14 40/15	206/5 207/9 207/24	102/23 103/1 103/4
47/4 49/1 49/12	208/3 209/14	103/15 103/17
49/18 51/18 52/1	209/22 210/2	103/20 104/4
55/9 57/8 57/14	210/19 212/5 214/8	104/10 104/13
57/17 57/25 59/11	217/6 218/4 219/2	105/17 107/6
60/4 60/24 61/11	219/5 219/13	114/15 117/15
62/2 63/5 63/9	219/15 219/16	118/16 120/20
63/19 63/21 64/2	222/13 223/5	122/2 122/15
65/4 66/3 67/9	224/11 225/9	122/18 123/3
68/12 68/21 69/18	226/11 226/15	123/13 123/22
71/8 71/14 72/6	226/16 227/19	123/24 124/5 131/1
72/10 73/3 73/5	228/1 228/1 229/12	132/5 137/3 139/3
76/11 79/6 79/24	230/10 230/10	139/16 139/22
80/17 81/1 83/9	230/24 230/25	150/7 150/9 152/15
83/14 84/4 84/7	232/3 239/22	152/19 154/1
85/11 86/1 89/17	239/23 240/9	154/11 158/17
90/2 90/5 91/8	240/13 241/1	162/16 162/18
91/17 94/10 103/22	241/15 241/16	162/21 162/23
106/13 110/6	241/22 242/19	163/5 164/7 168/17
111/21 111/22	242/20 243/2 243/7	168/18 171/14
112/9 112/17	243/19	176/1 176/8 176/13
112/18 113/23	<b>can't [15]</b> 51/4	205/3 205/8 213/17
115/5 120/22	51/22 107/12	213/17 239/11
122/13 122/14	107/14 115/23	239/14 241/14
122/21 122/23	116/1 130/4 144/24	<b>cases [1]</b> 176/3
125/1 126/3 126/4	149/25 154/4	<b>casino [1]</b> 87/17
127/4 129/2 130/1	162/17 162/23	<b>catching [1]</b>
130/23 134/17	167/1 173/9 232/16	201/18
137/22 139/25	<b>cannot [7]</b> 6/20	<b>categories [1]</b>
141/5 141/7 141/8	8/19 29/21 82/7	175/19
143/3 143/5 145/10	107/9 129/7 201/24	<b>causation [1]</b>



<b>C</b>	240/20 240/22 241/17 242/22	135/3 136/22 154/4 170/23 232/16
<b>causation</b> ... [1] 109/16	<b>certainty</b> [4] 92/20 107/9 107/12 107/15	<b>changing</b> [2] 129/20 134/19
<b>cause</b> [2] 109/20 170/19	<b>certificate</b> [4] 2/2 100/20 186/21 189/4	<b>channel</b> [7] 149/8 149/16 149/24 150/3 150/4 150/14 151/1
<b>caused</b> [1] 169/18	<b>certification</b> [6] 100/8 100/10 101/6 101/9 101/11 239/3	<b>channels</b> [1] 144/20
<b>caution</b> [1] 242/24	<b>certifications</b> [17] 101/2 101/14 101/19 136/5 234/3 236/4 236/5 237/4 237/6 237/7 237/14 238/10 238/14 238/15 238/22 238/25 239/1	<b>character</b> [1] 106/25
<b>caveat</b> [1] 240/11	<b>Certified</b> [2] 100/11 244/5	<b>characteristic</b> [1] 155/7
<b>CCE</b> [1] 237/17	<b>certifies</b> [3] 100/16 100/24 238/16	<b>characteristics</b> [4] 95/19 108/25 162/19 167/24
<b>CEECS</b> [1] 237/19	<b>certify</b> [2] 244/7 244/12	<b>characters</b> [1] 41/1
<b>central</b> [3] 6/25 108/10 218/5	<b>chain</b> [1] 21/1	<b>check</b> [7] 55/9 70/9 87/4 116/12 140/11 140/23 206/11
<b>certain</b> [32] 16/7 31/11 49/18 54/20 94/23 95/19 98/22 102/5 105/5 108/4 110/18 112/22 112/22 122/25 124/21 125/24 129/21 130/11 144/20 149/8 157/3 175/16 176/22 178/22 180/12 182/12 203/24 228/3 231/17 238/17 238/18 241/19	<b>chair</b> [1] 74/14	<b>checked</b> [1] 118/7
<b>certainly</b> [44] 7/21 7/25 8/2 12/2 13/15 53/3 54/23 61/7 66/18 71/21 72/24 73/3 73/15 73/25 92/15 103/19 108/4 109/17 109/22 115/15 116/3 117/6 124/8 125/1 128/18 131/5 135/12 135/23 137/2 147/12 157/25 159/13 160/1 170/3 178/5 200/23 213/24 223/2 228/8 239/6	<b>chambers</b> [2] 6/10 242/19	<b>checking</b> [1] 203/4
	<b>chance</b> [1] 51/24	<b>cherrypicked</b> [1] 156/22
	<b>change</b> [16] 4/24 21/8 64/3 64/3 66/11 104/12 128/13 130/1 134/16 145/14 170/19 209/4 212/10 212/11 212/20 212/21	<b>Chesher</b> [1] 22/17
	<b>changed</b> [7] 49/19 77/2 77/5 134/13 209/9 209/11 241/25	<b>child</b> [2] 98/24 99/3
	<b>changes</b> [6] 41/3	<b>chilling</b> [3] 70/4 70/10 73/8
		<b>choices</b> [1] 4/6
		<b>choose</b> [2] 53/9 73/12
		<b>Christian</b> [1] 16/12
		<b>CIFI</b> [1] 237/21
		<b>circles</b> [1] 141/12
		<b>Circuit</b> [1] 11/10
		<b>circulating</b> [1] 180/25
		<b>circumnavigating</b> [1] 128/6

<b>C</b>	241/14	82/15 82/16 82/18
<b>circumstances</b> [4]	<b>closer</b> [2]	<b>coincidence</b> [1]
54/9 126/19 171/3	226/16	187/20
179/5	<b>closing</b> [1]	<b>colleague</b> [2]
<b>circumstantial</b> [1]	121/1	15/6
107/13	<b>closing-up</b> [1]	235/12
<b>CISM</b> [1]	121/1	<b>collect</b> [3]
237/23	<b>CLR</b> [1]	138/6
<b>CISSP</b> [1]	244/17	138/8 217/17
237/25	<b>co</b> [1]	<b>collected</b> [6]
<b>cite</b> [2]	70/24	56/13 174/15
218/25	<b>co-counsel</b> [1]	174/18 174/18
219/4	70/24	175/2 179/20
<b>city</b> [5]	<b>code</b> [29]	<b>come</b> [19]
119/2	30/23	12/8
119/10 140/4	41/3 216/14 216/15	16/13 21/10 26/1
140/25 142/15	217/10 220/4	51/7 53/14 67/4
<b>claim</b> [3]	220/18 222/23	102/8 102/11 118/4
11/24	227/3 230/19	125/17 126/21
138/25 148/12	230/21 230/22	149/21 163/21
<b>clarification</b> [2]	231/2 231/8 231/9	163/23 222/25
53/13 125/5	231/21 232/4 232/7	228/23 235/17
<b>clean</b> [3]	232/10 232/19	239/10
5/15	232/20 232/21	<b>comes</b> [7]
158/23 243/2	232/24 233/19	13/16
<b>clear</b> [19]	233/24 234/9	42/9 62/13 62/15
32/19	234/15 235/15	62/16 62/25 103/20
51/19 53/4 70/14	235/23	<b>coming</b> [6]
71/18 107/18	<b>coded</b> [3]	8/14
107/24 108/8	231/5	9/5 67/14 70/12
110/22 116/6	231/6 231/23	102/11 124/1
116/11 118/11	<b>coder</b> [2]	<b>comment</b> [1]
142/1 179/4 183/16	231/25	50/15
188/8 233/24	232/9	<b>common</b> [1]
235/20 243/19	<b>coding</b> [17]	96/15
<b>clearly</b> [4]	215/23	<b>communicate</b> [1]
11/1	220/1 220/22	33/18
79/9 106/13 231/25	221/14 222/19	<b>communicated</b> [1]
<b>click</b> [2]	222/21 224/22	220/4
60/4	231/7 232/23	<b>communicating</b> [1]
64/2	232/24 232/25	221/25
<b>client</b> [3]	233/14 233/22	<b>communication</b> [9]
68/20	234/16 234/16	68/13 93/13 200/15
72/8 72/16	235/5 238/21	200/18 221/6
<b>clip</b> [3]	<b>coffeemaker</b> [4]	221/20 221/23
206/16	96/17 96/19 96/22	221/24 222/12
206/18 207/7	97/12	<b>communications</b> [13]
<b>clock</b> [4]	<b>coin</b> [5]	149/8 149/15
64/2	82/9	220/3 221/25 222/2
129/20 130/2	82/15 82/16 82/18	222/15 223/15
145/10	227/12	223/18 223/20
<b>clocks</b> [1]	<b>Coin-Exch</b> [4]	
134/10	82/9	
<b>close</b> [6]		
23/17		
122/18 135/3		
142/12 199/18		

<b>C</b>	<b>complies [3]</b> 227/7 229/4 229/7	<b>computers [12]</b> 79/14 80/3 135/2
<b>communications...</b>	<b>component [2]</b> 218/1 238/24	135/2 135/6 135/19 148/11 151/13 175/13 217/11 218/18 233/8
<b>[4]</b> 223/23 223/24 224/7 224/25	<b>components [1]</b> 217/5	<b>conceded [1]</b> 149/7
<b>community [2]</b> 222/1 223/22	<b>Compound [1]</b> 193/14	<b>concept [2]</b> 109/16 217/15
<b>companies [3]</b> 148/16 216/8 216/9	<b>compromise [1]</b> 147/24	<b>concepts [4]</b> 217/7 217/8 218/16 232/6
<b>company [22]</b> 19/19 21/5 26/5 37/10 46/8 58/10 102/1 102/3 102/6 102/14 102/18 102/23 123/18 137/20 148/10 189/4 195/22 196/6 216/4 233/11 234/20 234/23	<b>compute [2]</b> 160/8 160/9	<b>concern [6]</b> 9/3 11/2 11/12 11/14 11/16 11/17
<b>compare [7]</b> 42/2 57/8 57/25 80/7 117/11 188/13 236/5	<b>computer [73]</b> 44/8 62/6 62/15 63/17 63/20 64/1 64/4 64/10 64/17 64/20 65/3 65/7 89/17 93/10 93/15 93/18 93/21 101/13 117/22 121/4 126/3 126/4 126/6 126/9 126/25 127/1 127/5 128/10 128/13 128/20 129/20 129/22 130/19 130/22 136/4 136/5 136/21 143/6 144/8 144/12 145/7 145/7 145/10 147/17 147/19 147/24 148/4 177/1 179/11 189/23 203/8 212/11 212/20 214/18 215/16 216/14 217/12 218/17 230/23 231/2 231/12 231/17 233/4 233/6 233/7 233/9 233/13 233/13 233/16 233/17 233/18 238/15 238/21	<b>concerned [4]</b> 6/2 9/23 67/12 67/16
<b>compared [5]</b> 80/18 80/20 108/10 182/18 221/8	<b>computer's [1]</b> 143/13	<b>concerning [2]</b> 80/17 123/12
<b>comparing [1]</b> 183/11		<b>conclude [3]</b> 25/19 169/18 241/21
<b>comparison [4]</b> 41/23 42/6 65/19 182/12		<b>conclusion [8]</b> 8/10 114/20 136/21 156/6 169/4 233/21 234/1 240/18
<b>compensated [3]</b> 215/5 215/7 215/11		<b>conclusions [3]</b> 15/13 231/22 232/21
<b>Complaint [4]</b> 164/7 164/10 165/4 166/8		<b>conditions [4]</b> 29/23 87/16 94/12 162/12
<b>complete [3]</b> 37/11 242/5 244/10		<b>conduct [2]</b> 148/19 239/13
<b>completely [2]</b> 5/7 79/19		<b>confer [1]</b> 242/18
<b>complex [3]</b> 231/13 231/19 232/1		<b>conferred [1]</b> 3/10
<b>complicated [1]</b> 52/8		<b>configuration [2]</b> 33/9 112/24
		<b>configure [1]</b> 238/17
		<b>confirm [5]</b> 68/12 90/2 90/5 242/17 242/20
		<b>confirmed [6]</b> 21/7 23/2 96/3 96/10 159/1 199/9

<b>C</b>	<b>consulting [3]</b> 98/11 176/4 215/22	<b>continuously [1]</b> 232/15
<b>confirming [4]</b> 69/4 69/5 122/8 213/14	<b>contain [2]</b> 41/24 222/2	<b>continuum [1]</b> 231/9
<b>conflating [1]</b> 194/14	<b>contained [12]</b> 17/7 20/10 42/11 83/3 89/23 90/15 91/5 91/9 91/11 154/18 181/5 198/14	<b>contracts [1]</b> 82/9 <b>contradict [1]</b> 189/22
<b>confused [1]</b> 59/16 <b>confusing [3]</b> 4/13 5/2 6/24	<b>contains [14]</b> 33/5 33/9 33/17 40/5 81/8 81/11 81/16 86/3 89/21 90/14 109/6 138/22 196/17 244/12	<b>control [8]</b> 13/10 32/2 32/17 36/11 45/18 95/20 231/12 231/17
<b>connected [1]</b> 72/18	<b>content [5]</b> 87/24 88/1 88/3 116/23 170/24	<b>conversion [1]</b> 78/20
<b>connection [2]</b> 55/4 58/19	<b>contents [7]</b> 25/25 33/22 46/20 178/22 204/6 221/8 221/23	<b>convince [1]</b> 220/18
<b>connotation [2]</b> 4/21 5/16	<b>contested [2]</b> 10/5 11/8	<b>convincing [1]</b> 51/19
<b>connotes [1]</b> 7/23 <b>consider [4]</b> 69/7 176/16 194/17 202/12	<b>context [12]</b> 36/4 45/10 50/7 54/9 69/1 72/15 106/16 118/21 176/1 176/13 177/10 185/23	<b>copy [10]</b> 29/6 49/7 51/10 56/14 56/17 56/20 57/1 81/5 159/22 230/10
<b>considered [2]</b> 3/20 211/21	<b>continent [1]</b> 115/19	<b>copyright [6]</b> 89/21 90/10 91/11 181/1 181/9 181/11
<b>consistency [2]</b> 111/1 136/10	<b>continue [11]</b> 14/23 70/23 74/14 120/22 125/13 136/2 185/1 185/9 207/18 217/25 225/19	<b>copyrighted [1]</b> 118/4
<b>consistent [26]</b> 109/8 109/12 109/23 115/18 119/11 124/23 125/23 127/17 127/19 127/20 129/10 130/19 136/22 139/22 141/20 141/24 142/10 159/13 169/17 173/16 176/1 176/5 177/13 193/12 206/15 232/25	<b>continued [3]</b> 2/5 15/10 53/20	<b>corporate [2]</b> 23/8 189/11
<b>constitute [1]</b> 149/8	<b>continues [1]</b> 201/17	<b>Corporation [1]</b> 91/12
<b>constitutes [1]</b> 107/3	<b>continuing [1]</b> 16/24	<b>correct [134]</b> 19/7 19/16 19/17 23/14 24/19 24/21 25/23 26/14 26/19 27/24 30/13 31/4 31/13 37/23 38/12 38/17 41/5 42/10 43/23 48/2 48/17 48/19 49/22 52/22 57/4 59/22 61/25 75/23 75/25 76/1 77/11 79/23 85/1 85/18 88/17 93/8 93/9
<b>construct [1]</b> 235/18		

<b>C</b>	131/22	81/18 85/5 85/19
USCA11 Case: 22-11150 Document 53-13 Date Filed: 11/30/22 Page 69 of 234	<b>correct</b> [1]	86/12 91/3 93/22
<b>correct...</b> [97]	194/20	108/17 112/14
93/11 93/14 93/17	<b>correctly</b> [5]	112/25 112/25
93/20 96/6 97/9	146/23 154/8 177/2	114/17 116/7 117/7
97/16 97/22 98/9	177/7 178/11	120/13 120/17
99/22 100/12	<b>correlated</b> [1]	126/6 126/8 128/24
100/17 101/24	186/17	131/6 132/7 133/12
101/25 102/1 102/2	<b>correlation</b> [2]	135/3 135/6 139/18
102/23 103/18	109/15 109/20	143/7 143/8 144/12
104/7 104/8 104/11	<b>correspond</b> [10]	144/14 144/16
104/17 104/20	35/2 40/10 40/22	145/3 145/4 146/24
104/23 105/2 105/5	40/23 49/15 56/19	149/8 152/8 155/15
105/6 105/16 106/1	64/22 79/10 79/19	160/9 160/10
106/2 106/3 106/5	81/15	160/11 161/15
106/6 106/9 106/11	<b>corresponded</b> [1]	163/5 164/9 165/10
106/12 106/19	44/13	165/14 167/7
107/1 107/14 109/1	<b>corresponding</b> [4]	167/24 169/20
109/9 110/1 111/10	75/13 75/14 77/25	169/22 170/22
113/4 114/1 116/18	78/17	170/24 171/3
116/19 118/23	<b>corresponds</b> [8]	172/23 174/8
119/20 120/2 120/3	34/24 41/1 44/5	178/10 179/12
121/7 125/25 126/1	49/17 65/23 67/6	179/15 184/6 184/7
126/16 130/16	79/18 206/8	184/10 185/11
133/11 133/13	<b>could</b> [164]	185/12 185/20
133/14 137/6 137/7	4/12	185/21 186/1
138/16 138/19	4/13 7/8 8/9 12/9	187/13 189/21
138/21 139/7	13/19 17/16 17/18	189/24 191/18
141/24 146/17	19/11 20/24 20/25	194/1 197/14
147/3 150/11	21/25 23/17 23/22	198/11 198/25
153/16 155/3	24/10 25/24 26/8	201/3 202/4 202/7
160/19 160/22	26/25 27/9 28/9	206/18 206/24
162/14 162/25	29/11 32/25 33/22	210/12 210/13
175/21 176/12	36/17 36/25 37/5	213/20 215/14
176/23 182/6 183/9	39/9 40/1 41/18	215/20 217/4
183/24 184/7	42/14 42/15 43/9	217/19 218/24
190/15 195/17	44/21 45/23 46/21	220/5 220/7 220/9
195/18 196/20	47/14 49/23 52/10	220/15 220/18
199/19 201/14	54/2 55/12 56/3	220/18 220/24
202/1 203/11	56/10 56/21 57/13	222/25 226/6 227/5
203/14 203/25	59/2 60/19 64/23	227/25 228/6 229/3
204/3 204/6 210/24	66/6 66/13 68/1	229/6 230/21 231/7
222/8 244/10	69/8 69/25 71/22	233/6 233/24
<b>corrected</b> [1]	72/2 75/5 75/6	236/25 237/11
	76/7 77/18 80/21	

<b>C</b>	9/9 9/25 10/17	165/11 178/13
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 70 of 254	11/3 11/11 11/14	179/23 179/25
<b>could...</b> [1]	11/15 11/18 12/1	191/22 194/6 194/9
238/13	12/10 12/14 12/22	195/20 197/15
<b>couldn't</b> [1] 160/1	12/24 16/9 36/1	197/16 198/12
<b>counsel</b> [36] 68/12	45/7 50/5 50/17	201/6 201/16 202/9
68/16 68/17 70/24	52/7 66/23 68/14	203/2 203/18
106/1 111/25 113/6	68/16 69/4 69/5	204/24 205/4
114/8 114/14	69/7 69/13 69/21	210/17 211/14
119/19 131/14	70/19 71/1 72/15	214/25
132/23 133/23	73/5 110/11 120/23	<b>craig.wright</b> [3]
134/7 146/9 147/7	122/16 122/19	43/15 43/17 89/8
151/4 155/8 155/24	124/2 124/5 129/2	<b>create</b> [24] 34/21
156/2 157/14	212/5 218/14 219/3	39/14 47/20 48/9
158/18 163/22	219/15 224/19	49/2 49/18 61/16
167/8 171/9 175/6	228/2 234/4 241/13	62/5 62/7 63/3
182/20 186/23	241/18 242/10	84/22 99/2 128/14
191/24 192/10	242/14 242/19	129/15 167/12
194/25 195/14	243/8 244/6 244/9	168/1 168/8 168/22
196/5 220/25 236/8	<b>Court's</b> [4] 5/9	173/1 177/1 192/16
242/6	73/7 122/4 122/7	193/10 193/19
<b>counseled</b> [1]	<b>courtroom</b> [5]	194/8
68/20	239/10 239/14	<b>created</b> [59] 19/3
<b>counterfeit</b> [3]	240/3 240/6 240/9	19/5 20/6 21/18
7/19 7/23 8/2	<b>cover</b> [1] 39/6	24/17 27/6 27/21
<b>country</b> [8] 115/21	<b>craig</b> [73] 1/7	31/3 35/11 39/15
143/8 143/9 143/22	15/18 17/4 19/9	41/7 41/14 41/15
144/2 144/12	19/22 19/24 21/3	41/16 44/18 44/19
144/20 144/24	22/17 22/18 22/21	49/14 61/2 61/4
<b>Counts</b> [1] 240/23	23/7 23/7 24/25	61/6 61/17 76/3
<b>couple</b> [2] 27/4	25/13 25/25 27/8	77/15 81/12 84/11
30/12	28/1 28/3 28/23	84/16 85/16 89/6
<b>course</b> [21] 5/25	29/12 29/16 37/12	90/12 90/13 90/15
12/11 15/9 15/9	41/16 41/16 52/15	90/17 91/1 91/16
67/21 68/18 69/7	54/11 54/20 55/16	98/23 108/20
73/17 73/19 97/14	56/1 56/6 58/4	110/16 110/20
97/16 105/8 105/9	58/5 58/12 61/18	126/9 141/10
110/19 125/18	61/20 63/14 63/15	146/22 172/9
225/25 226/9 239/2	64/12 66/10 76/12	172/24 173/3
239/3 241/7 241/17	76/19 81/1 81/12	173/10 174/24
<b>court</b> [66] 1/1	81/13 82/16 86/9	177/6 180/13
1/23 1/23 3/1 3/25	104/7 115/13	194/16 204/24
4/10 4/11 4/13 5/3	154/21 161/18	205/4 205/9 208/22
6/24 6/24 9/6 9/9	161/18 161/21	208/23 211/7



<div>C</div> <div>USCA11 Case: 22-11150 Document: 83-83 Date Filed: 11/30/2022 Page: 71 of 254</div> <div>created... [4]</div> <div>211/11 230/15</div> <div>232/6 232/8</div> <div>creating [1]</div> <div>128/19</div> <div>creation [5]</div> <div>168/19 169/2</div> <div>169/15 173/7</div> <div>175/17</div> <div>creator [1] 27/7</div> <div>credentials [4]</div> <div>151/2 151/2 151/4</div> <div>151/5</div> <div>credible [1]</div> <div>106/21</div> <div>critical [2] 95/7</div> <div>217/18</div> <div>cross [17] 2/6 6/9</div> <div>7/25 68/24 92/13</div> <div>92/24 92/25 123/1</div> <div>123/6 123/8 125/14</div> <div>185/9 205/24</div> <div>210/21 210/22</div> <div>211/6 211/20</div> <div>cross-examination [12] 2/6 68/24</div> <div>92/13 92/24 92/25</div> <div>123/6 123/8 125/14</div> <div>185/9 205/24 211/6</div> <div>211/20</div> <div>cross-examine [1]</div> <div>7/25</div> <div>crosses [1] 69/20</div> <div>CRR [1] 244/17</div> <div>cryptographic [35]</div> <div>17/7 17/10 17/14</div> <div>17/25 18/11 18/24</div> <div>19/1 19/16 23/18</div> <div>24/3 25/21 26/16</div> <div>26/17 27/12 27/17</div> <div>27/19 27/20 37/20</div> <div>37/21 38/14 38/16</div>	<div>39/3 41/25 42/2</div> <div>83/18 84/10 88/2</div> <div>90/14 91/9 109/1</div> <div>116/22 178/24</div> <div>181/5 181/11 222/1</div> <div>cryptography [3]</div> <div>93/12 199/19</div> <div>199/24</div> <div>CSR [1] 244/17</div> <div>CSW [2] 64/15</div> <div>64/21</div> <div>currency [3] 8/19</div> <div>99/17 217/13</div> <div>current [2] 113/23</div> <div>119/23</div> <div>custody [4] 32/2</div> <div>32/17 36/11 45/18</div> <div>cutting [1] 134/20</div> <div>cv [1] 1/2</div> <div>cybersecurity [4]</div> <div>215/23 215/24</div> <div>216/7 216/9</div> <div>D</div> <div>D-E-F-A-U-S [2]</div> <div>163/18 175/5</div> <div>D318 [1] 183/7</div> <div>D383 [2] 221/10</div> <div>222/5</div> <div>D412 [1] 171/9</div> <div>D426 [2] 192/9</div> <div>193/3</div> <div>D428 [1] 168/13</div> <div>D453 [4] 182/19</div> <div>182/20 182/21</div> <div>183/3</div> <div>D58 [4] 131/15</div> <div>131/17 131/24</div> <div>131/25</div> <div>damages [6] 8/15</div> <div>9/5 10/7 11/21</div> <div>11/23 240/23</div> <div>dark [1] 98/15</div> <div>data [14] 18/2</div>	<div>138/23 139/5</div> <div>139/10 139/16</div> <div>141/10 174/1 174/9</div> <div>174/11 175/19</div> <div>231/3 231/3 233/7</div> <div>233/9</div> <div>database [7] 72/19</div> <div>72/21 119/11 120/7</div> <div>138/23 139/6</div> <div>179/22</div> <div>databases [1]</div> <div>119/1</div> <div>datapoint [2]</div> <div>223/5 226/2</div> <div>date [106] 19/1</div> <div>19/8 19/8 20/22</div> <div>24/22 27/18 27/20</div> <div>27/25 29/8 39/6</div> <div>39/14 43/20 43/24</div> <div>47/20 48/9 48/9</div> <div>56/3 57/4 57/4</div> <div>57/17 57/24 57/24</div> <div>58/2 58/3 58/11</div> <div>58/14 61/22 62/3</div> <div>62/4 62/8 62/10</div> <div>62/14 62/16 62/24</div> <div>62/25 62/25 63/17</div> <div>63/19 63/25 64/3</div> <div>64/3 64/13 65/4</div> <div>65/7 65/8 65/8</div> <div>65/11 65/12 65/14</div> <div>65/25 76/15 77/2</div> <div>77/3 77/5 77/8</div> <div>79/20 81/10 81/11</div> <div>81/13 82/1 82/1</div> <div>82/4 82/5 89/9</div> <div>90/11 118/22</div> <div>133/11 135/16</div> <div>135/16 141/10</div> <div>141/11 168/19</div> <div>169/2 169/15 172/5</div> <div>172/6 172/9 173/6</div> <div>173/7 176/23</div> <div>176/25 181/1</div>
---	--	--

<b>D</b>	50/3 55/25 56/7	153/23 201/18
USCA11 Case: 22-11150 Document: 55-13 Date Filed: 11/30/2022 Page: 72 of 254	66/11 66/10 76/12	202/11 202/12
<b>date...</b> [24]	76/17 80/25 82/5	<b>de</b> [1] 1/21
181/22 189/7 192/4	82/14 84/13 84/15	<b>dead</b> [5] 20/3
193/10 193/19	133/4 133/5 178/14	21/17 25/4 133/9
193/23 193/23	179/19 180/2 180/3	133/10
194/8 200/16	203/3 208/16	<b>deadline</b> [1]
200/20 200/22	214/24 233/21	241/25
206/4 209/4 210/19	233/23 234/2	<b>deal</b> [1] 219/5
221/13 222/21	234/11 234/13	<b>dealing</b> [1] 82/10
222/22 224/2	234/14 234/20	<b>death</b> [1] 82/6
225/17 226/6 229/1	234/24 235/1 235/5	<b>December</b> [7] 25/13
230/13 230/16	235/12 235/14	36/22 45/2 46/5
241/16	235/16 235/22	187/6 188/14 229/2
<b>dated</b> [14] 86/19	235/25 236/20	<b>decision</b> [3] 52/20
87/9 87/19 88/4	237/7 237/14	73/15 73/17
89/22 90/25 91/10	238/10	<b>declaration</b> [4]
91/13 133/5 168/18	<b>Dave's</b> [2] 36/21	53/15 54/11 54/19
181/6 181/12	46/4	105/18
193/11 194/4	<b>davekleiman.com</b> [1]	<b>declarations</b> [1]
<b>dates</b> [32] 8/10	76/17	105/17
8/15 9/5 9/13 9/16	<b>David</b> [24] 1/4	<b>deed</b> [6] 86/17
9/18 10/3 10/6	87/10 93/7 101/18	87/8 87/18 88/17
10/12 10/21 10/22	104/6 104/25	89/9 89/17
10/23 11/1 11/19	131/10 133/8	<b>deep</b> [3] 123/21
11/20 11/23 12/2	133/12 177/21	123/24 218/17
57/8 58/1 61/7	178/12 178/16	<b>deeper</b> [1] 73/1
61/13 62/3 62/4	179/1 179/2 195/20	<b>deeply</b> [2] 103/17
62/5 63/3 79/9	197/14 197/16	103/19
130/1 172/6 175/17	197/24 198/11	<b>DEF</b> [1] 53/4
175/18 177/5	199/10 200/19	<b>default</b> [1] 51/12
200/19	203/6 203/18	<b>DEFAUS</b> [7] 167/17
<b>dave</b> [74] 17/4	203/20	167/20 187/10
19/9 19/24 19/25	<b>day</b> [13] 1/9 19/5	187/18 187/20
20/3 21/3 21/12	27/22 70/23 96/11	188/15 188/17
21/13 21/17 22/18	96/16 102/8 155/22	<b>defend</b> [1] 70/2
22/20 23/7 24/25	211/12 230/13	<b>Defendant</b> [36] 1/8
25/4 25/12 25/25	241/10 244/9	1/18 2/7 7/17 8/6
27/25 28/3 28/23	244/15	31/25 32/15 34/13
29/24 33/6 34/9	<b>Daylight</b> [3] 39/21	34/14 34/21 35/22
34/15 34/23 34/25	39/23 127/10	36/11 44/14 50/20
35/3 36/20 37/8	<b>days</b> [11] 24/20	51/14 53/4 56/19
37/13 39/7 45/2	27/22 35/11 61/3	82/22 88/6 91/23
46/3 46/11 50/2	61/6 79/9 103/22	92/1 107/15 123/2



<b>D</b>	<b>deleted [2]</b> 76/22 86/4	<b>description [5]</b> 5/10 7/19 7/20
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 78 of 254		
<b>Defendant...</b> [13]	<b>demand [1]</b> 8/11	33/24 96/13
177/18 187/6 205/7	<b>demonstrate [1]</b> 112/5	<b>desert [1]</b> 142/5
208/12 208/15	<b>demonstrating [1]</b> 238/19	<b>designed [2]</b> 147/23 215/25
208/21 209/9	<b>demonstrative [2]</b> 15/1 45/16	<b>desktop [1]</b> 49/7
209/17 209/24	<b>denied [1]</b> 148/25	<b>detail [3]</b> 116/12 126/22 202/13
210/7 213/4 213/18	<b>Denis [2]</b> 58/5 58/11	<b>detect [2]</b> 135/7 148/4
243/9	<b>denotation [2]</b> 4/21 5/15	<b>detection [1]</b> 135/3
<b>Defendant's [24]</b>	<b>depend [5]</b> 143/15 143/19 169/20 170/21 170/25	<b>determination [1]</b> 9/7
2/24 32/1 32/17	<b>depending [3]</b> 79/10 127/10 173/19	<b>determinations [1]</b> 136/10
34/19 45/18 64/22	<b>depends [8]</b> 39/21 112/24 126/19 138/24 152/9 173/22 174/3 181/22	<b>determine [36]</b> 21/19 35/6 37/18 46/19 47/17 51/14 55/6 56/16 81/22 81/22 89/12 108/5 110/9 110/14 110/20 111/2 116/15 116/17 121/5 125/20 130/15 142/11 142/17 148/15 148/20 149/4 152/23 153/8 154/6 178/19 182/12 186/11 191/1 192/18 197/14 198/25
122/15 145/21	<b>deposed [1]</b> 105/12	<b>determined [6]</b> 8/19 16/19 136/12 161/24 186/9 196/24
167/8 167/15	<b>deposition [12]</b> 30/18 31/6 68/25 105/10 150/8 150/18 151/11 151/15 158/25 172/25 206/17 235/8	<b>determining [3]</b> 11/21 97/15 110/16
167/20 167/23	<b>depositions [3]</b> 105/15 118/25 120/12	<b>developed [4]</b> 215/25 216/15 233/10 233/17
171/20 177/21	<b>derived [1]</b> 210/4	<b>developer [3]</b>
178/2 200/4 202/4	<b>describe [8]</b> 17/11 22/9 29/20 30/20 33/16 49/1 54/8 217/8	
206/17 207/20	<b>described [4]</b> 106/4 106/7 121/5 162/13	
213/17 220/5		
220/24 221/10		
241/14		
<b>Defendants [6]</b>		
7/17 15/17 45/3		
240/20 241/2		
242/18		
<b>defense [5]</b> 1/4		
37/9 74/6 100/3		
214/5		
<b>define [1]</b> 104/5		
<b>defined [1]</b> 29/17		
<b>definitely [2]</b>		
80/19 188/19		
<b>definition [1]</b>		
6/21		
<b>definitively [2]</b>		
109/7 111/4		
<b>defraud [2]</b> 4/22		
6/22		
<b>degree [5]</b> 80/17		
92/20 93/23 190/14		
215/18		
<b>degrees [2]</b> 93/10		
93/18		
<b>delay [1]</b> 182/7		

<b>D</b>	50/17 50/19 51/21	159/10 159/10
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 74 of 254	55/2 55/2 55/5	159/21 159/24
<b>developer...</b> [3]	55/6 56/16 57/10	160/17 160/20
30/16 31/2 231/24	57/12 58/8 66/10	161/25 162/21
<b>developing</b> [1]	66/12 79/3 79/5	163/20 163/21
220/21	81/22 81/22 83/3	163/23 164/6 164/8
<b>development</b> [12]	83/5 84/13 86/9	165/4 166/15
30/23 219/23	86/11 88/7 88/8	166/16 170/10
222/23 223/6	90/10 90/12 90/14	172/16 176/9
224/17 225/1 226/3	91/5 91/7 91/22	176/12 177/9
226/25 227/17	91/24 92/3 98/10	179/12 180/1 183/2
227/18 232/14	98/13 98/21 99/2	185/14 185/16
235/2	99/24 100/2 102/7	186/12 186/19
<b>device</b> [13] 44/9	102/10 102/13	189/3 189/10
64/17 72/1 72/6	102/16 102/20	189/10 189/12
112/22 112/24	103/3 103/15	190/1 190/2 190/3
112/25 116/18	107/14 107/15	190/4 190/19
119/23 120/4 120/5	109/4 109/7 110/4	190/20 190/22
131/7 177/5	110/18 112/11	190/25 191/3
<b>devices</b> [20] 113/1	113/9 113/13	192/16 195/14
131/1 148/20	114/22 114/22	196/11 197/12
148/22 149/1 149/4	115/9 115/12	197/13 201/8
174/17 177/7 177/8	116/16 116/20	201/12 203/8
177/9 177/19	116/21 118/11	203/21 204/1
177/20 177/21	118/12 123/9	206/11 206/13
177/23 177/24	123/19 125/2 125/2	216/3 216/5 216/13
178/3 178/3 178/4	129/15 129/16	216/20 220/17
178/6 180/2	130/14 132/24	222/21 223/15
<b>DEVIN</b> [1] 1/13	133/16 135/16	223/17 224/24
<b>dictionary</b> [3]	136/9 136/11	228/11 228/18
4/20 4/21 6/21	136/20 136/24	228/23 231/4
<b>did</b> [224] 6/6 7/1	137/2 137/5 140/12	233/25 234/5 234/7
8/9 12/20 18/2	141/17 142/4 142/8	234/8 234/11
18/4 20/7 20/10	142/12 142/17	234/12 234/13
20/12 21/13 21/19	144/8 144/17	235/5 235/14
21/21 23/3 23/20	145/21 148/14	235/22 235/25
23/21 25/19 31/7	148/23 148/24	240/19
32/4 32/6 36/3	149/1 149/3 149/3	<b>didn't</b> [71] 15/5
36/5 37/18 42/2	149/5 150/4 150/6	90/18 102/15
42/4 42/6 42/11	150/6 150/13	102/17 111/7 113/2
42/13 42/24 42/25	151/16 152/25	113/2 113/17 114/2
44/5 44/17 44/20	153/12 154/7 154/8	114/4 114/22
45/9 45/11 46/19	154/9 158/17	116/12 116/14
47/17 50/4 50/6	158/17 158/23	116/17 117/6 117/7

<b>D</b>	111/10 129/6	102/18 102/23
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/06/22 Page: 76 of 254	148/17 157/5	<b>discipline [1]</b>
<b>didn't... [55]</b>	163/25 170/18	233/13
121/3 123/16	170/18 175/19	<b>disciplines [1]</b>
126/23 129/13	200/8 216/4 228/14	218/4
132/24 135/15	230/24 230/25	<b>disclosed [4]</b>
140/11 140/23	231/7 231/10 232/3	33/22 217/22
145/20 145/20	232/23 232/23	227/15 229/18
148/20 148/22	233/1 233/19	<b>discover [1]</b> 135/9
151/5 152/22 153/2	236/15 236/16	<b>discovered [1]</b>
153/6 153/17 154/5	<b>differently [1]</b>	232/13
157/7 158/22	128/25	<b>discuss [3]</b> 149/6
158/25 159/3 159/5	<b>difficult [4]</b>	176/16 239/11
159/12 159/22	13/22 80/4 135/7	<b>discussed [8]</b>
160/15 160/18	232/2	19/20 68/16 69/4
160/20 162/3 162/4	<b>difficulty [4]</b>	82/9 82/12 125/17
162/10 162/24	14/24 83/8 135/15	127/12 213/19
167/12 167/12	231/8	<b>discussion [6]</b>
168/1 168/1 168/8	<b>digital [15]</b> 83/3	54/1 69/2 72/14
168/22 168/23	84/7 84/8 84/19	72/20 152/12
170/3 173/18 177/7	100/10 108/25	212/15
177/19 177/23	117/10 117/18	<b>discussions [1]</b>
178/5 186/10	121/9 121/10	149/2
186/15 186/18	141/15 160/2	<b>dismiss [1]</b> 53/6
197/6 197/10	178/23 185/12	<b>display [1]</b> 86/7
198/24 201/24	189/25	<b>displayed [2]</b> 41/2
203/20 206/23	<b>dimensions [1]</b>	240/4
210/21	14/25	<b>disprove [2]</b> 97/10
<b>die [1]</b> 84/13	<b>direct [17]</b> 2/5	129/19
<b>died [1]</b> 84/15	2/8 13/20 15/10	<b>disproved [4]</b> 96/3
<b>difference [8]</b>	69/7 70/25 73/9	96/3 96/11 180/4
4/18 28/17 62/2	98/14 99/7 99/20	<b>disputable [1]</b>
65/2 135/15 159/1	107/21 126/13	10/20
159/2 181/15	188/3 195/6 195/10	<b>dispute [11]</b> 9/11
<b>differences [1]</b>	198/6 214/11	9/11 9/13 9/14
57/25	<b>directing [2]</b>	9/20 9/22 9/25
<b>different [41]</b>	70/19 187/9	10/18 11/6 12/3
4/14 5/16 5/17	<b>directly [5]</b> 3/15	67/19
10/23 48/14 49/3	72/6 102/19 151/18	<b>disregard [1]</b>
49/6 57/24 72/4	212/6	50/14
75/19 76/15 79/13	<b>director [11]</b> 26/6	<b>distinguish [1]</b>
79/20 81/2 81/10	37/9 46/7 82/8	4/17
85/14 110/13	102/4 102/5 102/6	<b>DISTRICT [7]</b> 1/1
110/17 110/21	102/9 102/12	1/1 1/10 1/23

<b>D</b>	109/3 110/10	183/18 183/23
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 76 of 254	111/15 111/19	187/3 187/4 187/23
<b>DISTRICT...</b> [3]	111/24 112/2 112/7	189/3 191/21
244/3 244/6 244/7	113/3 113/13	192/16 195/17
<b>divided</b> [2] 29/18	113/14 115/5 116/7	195/25 196/5 196/9
29/19	117/2 117/7 117/8	196/16 196/16
<b>DIVISION</b> [1] 1/2	117/9 117/10	196/17 198/13
<b>divulging</b> [1]	117/12 117/18	198/15 198/19
221/22	121/6 125/21	199/16 200/21
<b>do</b> [272]	128/14 129/9 131/9	201/21 202/14
<b>doctoral</b> [1]	131/12 131/16	202/17 202/20
190/19	131/20 132/19	203/13 206/3 210/4
<b>doctorate</b> [1]	132/21 132/23	210/5 221/3
190/17	132/24 133/1 133/4	<b>documentation</b> [2]
<b>document</b> [217] 8/3	133/13 133/17	33/19 81/1
17/2 17/3 17/8	134/5 134/11	<b>documents</b> [166]
23/15 27/8 29/4	134/16 134/19	4/25 10/24 15/14
32/10 32/13 32/16	135/10 141/9	15/15 15/16 16/19
33/12 35/22 35/25	146/21 146/22	21/19 44/17 47/19
36/3 36/12 37/13	147/1 154/16	48/13 49/2 50/20
37/18 37/19 37/22	154/16 154/19	54/20 55/2 55/3
38/8 38/15 39/12	154/20 154/22	55/16 56/18 57/10
39/15 39/18 41/4	154/25 156/2	74/22 75/17 75/18
44/21 45/3 45/9	159/14 160/2 160/6	76/4 77/15 80/7
45/19 48/14 48/15	160/11 161/5 161/6	80/24 81/15 85/13
48/22 48/24 48/24	161/14 161/16	85/16 85/25 86/9
48/25 49/2 49/4	161/24 162/10	91/19 91/23 92/8
49/5 49/5 49/8	162/18 162/21	97/19 97/22 97/25
52/6 53/3 54/6	162/23 163/8	100/8 105/5 105/7
54/8 54/10 54/13	163/15 164/5 164/6	105/23 106/2 106/4
55/13 55/24 55/25	165/3 165/3 166/20	106/7 106/10 107/8
56/4 56/15 56/16	167/2 167/10	107/11 107/17
56/18 57/2 57/3	167/12 167/23	107/25 108/1 108/3
57/21 57/23 61/2	168/1 168/8 168/18	108/4 108/5 108/7
61/4 75/12 75/18	168/22 170/18	108/9 108/9 108/10
75/20 75/21 75/24	171/5 171/25	108/19 108/20
78/2 78/4 81/5	172/23 173/1 173/2	109/1 110/15
85/14 85/15 86/16	173/9 173/13	110/17 110/22
86/17 86/21 87/20	173/19 173/20	116/25 120/21
87/25 88/3 88/7	173/22 177/15	121/3 124/17
89/5 89/6 89/8	177/17 177/18	124/20 124/21
90/11 90/24 91/1	177/19 180/12	126/9 127/7 127/12
97/15 104/13 107/3	181/16 181/18	127/18 129/11
107/6 108/8 108/10	182/11 183/3 183/4	132/5 135/14

<b>D</b>	11/10 17/2 19/8	234/24 235/1
USCA11 Case: 22-11150 Document: 63-23 Date Filed: 11/03/22 Page: 77 of 254	19/10 20/22 20/23	<b>domain</b> [51] 191/25
<b>documents...</b> [91]	24/22 24/24 25/11	192/21 194/15
136/16 136/24	27/3 27/25 28/2	194/15 194/21
141/15 152/14	29/7 31/8 33/3	<b>domains</b> [1] 192/19
152/19 152/23	33/19 34/19 39/6	<b>don't</b> [164] 3/18
153/2 153/3 153/7	39/8 40/16 40/23	6/14 7/22 8/3 10/8
153/18 154/6 154/9	41/23 42/21 44/2	10/11 11/3 11/25
154/11 154/13	44/10 46/2 48/20	13/10 16/23 41/12
155/6 155/15	52/12 54/14 61/8	45/14 53/14 59/10
155/24 156/8	62/1 64/22 65/19	67/23 69/24 70/1
156/12 156/13	70/5 73/8 76/2	70/8 70/22 71/21
156/15 156/18	76/23 80/7 80/9	71/23 72/17 72/23
156/21 156/23	80/11 89/5 93/25	72/23 72/24 73/15
157/3 157/14 158/1	109/21 112/21	98/4 100/20 101/2
158/3 158/13	112/22 112/23	101/5 101/11
158/22 158/25	115/8 118/16	101/12 101/12
159/9 159/11	118/24 126/18	102/6 103/2 103/6
159/17 159/23	137/9 138/2 138/5	103/11 103/13
160/15 162/2 162/4	143/7 144/3 144/15	103/19 104/3
162/5 162/16	156/5 167/23	104/18 104/21
162/19 163/21	167/24 172/8	104/24 105/11
164/1 166/21 169/5	172/21 187/22	106/21 107/22
169/18 173/17	187/24 192/14	108/2 108/18 111/6
173/18 174/15	198/22 206/10	111/16 112/8
174/20 174/23	208/7 218/22	112/11 113/19
175/2 175/5 175/11	219/11 220/20	113/24 114/3 114/5
175/20 175/20	222/2 222/4 222/12	114/16 114/17
176/2 176/3 176/22	223/24 231/17	115/23 116/1 116/8
177/4 177/5 177/18	<b>doesn't</b> [26] 4/9	117/22 118/1 118/2
178/11 178/23	12/2 52/3 66/3	120/25 122/6
180/9 182/12	71/25 72/8 93/23	122/17 122/19
182/18 185/12	96/18 96/23 97/1	123/7 124/24
186/2 186/3 186/5	97/8 102/8 109/3	126/18 128/1 130/7
186/6 186/12	109/7 109/12	130/8 131/23 132/2
186/15 186/17	109/20 117/4	133/11 133/15
188/8 188/9 192/6	118/17 118/19	133/17 134/14
193/13 194/11	120/6 131/2 131/19	134/14 138/10
200/7 200/10	138/25 171/25	138/12 138/13
200/12 203/25	172/3 173/21	138/13 138/17
204/2 204/6 204/10	<b>doing</b> [10] 4/23	138/20 139/7
209/5 210/8 233/25	70/9 71/1 96/21	139/15 140/3 140/9
234/4	123/23 142/8	140/10 140/21
<b>does</b> [76] 5/21	164/24 232/19	142/19 143/11

<b>D</b>	123/23	7/11 12/7 13/18
USCA11 Case: 22-11150 Document: 33-139 Date Filed: 11/30/2022 Page: 78 of 234	<b>Dorian [39]</b> 15/21	13/19 14/7 14/24
<b>don't...</b> [69]	17/18 18/5 19/11	14/22 15/12 16/18
144/10 146/4 146/8	20/24 21/22 21/25	17/2 17/24 18/10
147/4 148/18 149/5	23/22 24/10 26/25	19/15 19/25 21/13
153/5 153/16 154/2	27/9 28/9 29/11	21/19 21/20 22/3
155/17 155/19	31/21 32/25 37/5	23/15 24/2 24/13
156/10 157/2	39/9 40/1 41/18	24/22 25/11 25/14
161/21 161/23	42/15 49/23 55/12	25/19 26/9 26/11
163/23 164/12	56/3 56/21 57/13	27/3 27/12 28/12
164/16 165/6	66/6 66/13 76/7	29/25 30/6 31/8
165/19 166/3	77/18 77/21 80/21	31/24 32/11 32/14
172/18 173/14	81/18 85/5 85/19	33/3 34/7 35/16
174/15 174/20	86/12 91/3 91/17	35/20 35/22 36/19
174/23 175/5	205/16 210/12	37/13 38/4 39/2
175/11 176/14	<b>dormant [3]</b> 26/4	40/4 42/18 44/1
176/15 176/18	195/22 196/6	44/25 45/3 46/2
177/4 177/25	<b>dot [3]</b> 71/17	46/12 46/19 46/23
179/19 179/21	71/17 71/17	47/6 49/12 50/4
179/22 179/23	<b>doubt [2]</b> 92/7	52/17 54/11 54/20
179/25 180/20	156/6	55/3 55/19 56/12
180/24 181/4	<b>down [33]</b> 16/13	56/24 58/18 58/25
181/10 181/13	17/16 20/8 22/12	59/7 59/25 63/19
181/15 181/15	23/22 23/23 25/24	66/9 66/15 66/24
181/25 182/22	26/8 30/19 31/21	67/5 67/7 67/8
183/4 183/13	35/17 37/25 39/22	67/14 67/19 68/9
183/14 183/15	40/12 40/22 42/14	69/2 69/4 70/4
184/17 186/1 186/4	44/21 46/21 58/22	70/5 70/6 71/3
187/4 192/2 200/2	66/14 78/14 83/6	71/7 71/11 71/14
200/20 200/21	83/14 88/10 91/17	71/18 73/3 73/6
201/14 201/15	116/8 165/15	74/8 74/13 77/24
203/22 205/19	188/25 193/16	78/10 78/16 79/3
208/1 219/4 219/14	222/13 225/14	81/21 83/3 83/12
222/22 227/22	236/25 237/11	83/17 84/13 86/20
241/17	<b>download [1]</b>	87/12 87/14 87/18
<b>don't know [1]</b>	230/10	88/14 90/5 91/14
115/23	<b>dozens [2]</b> 203/17	91/19 92/19 93/5
<b>done [12]</b> 8/25	203/18	93/6 101/13 104/25
82/9 109/9 122/1	<b>DR [10]</b> 2/5 6/11	106/21 106/24
122/6 125/20	7/18 18/21 59/11	107/9 107/25 109/9
125/23 136/22	69/18 70/7 84/7	109/24 109/25
184/6 185/11 190/5	104/25 213/9	111/1 115/13
232/5	<b>Dr. [212]</b> 3/12	115/25 116/14
<b>door [2]</b> 123/12	3/15 5/12 6/3 6/8	122/1 122/25 123/9



<b>D</b>	13/19 14/7 14/22	122/25 205/16
USCA11 Case: 22-11150 Document: 83-15 Date Filed: 11/30/22 Page: 79 of 154	15/18 16/18 17/2	<b>Dr. Kleiman [11]</b>
<b>Dr. .... [79]</b>	177/24 18/10 19/15	200/18
124/1 124/11	19/25 21/13 21/19	<b>Dr. Wright [62]</b>
125/13 125/16	22/3 23/15 24/2	32/11 50/4 55/3
125/24 130/11	24/13 24/22 25/11	67/8 67/14 67/19
130/19 131/1 131/2	25/14 25/19 26/9	68/9 69/2 69/4
131/6 131/19 132/3	26/11 27/3 27/12	71/7 71/14 73/6
135/18 136/4	28/12 29/25 30/6	86/20 87/12 87/14
136/11 136/12	31/8 31/24 32/14	93/6 101/13 104/25
136/16 136/21	33/3 34/7 35/16	106/21 107/9 109/9
136/22 138/14	35/20 35/22 36/19	109/24 109/25
140/21 141/20	37/13 38/4 39/2	111/1 115/25
141/24 142/10	40/4 42/18 44/1	116/14 125/24
142/12 148/9	44/25 45/3 46/2	130/11 130/19
148/13 148/16	46/12 46/19 46/23	131/1 131/2 135/18
149/8 149/15 151/1	47/6 49/12 52/17	136/4 136/11
151/8 151/9 151/13	55/19 56/12 56/24	136/16 136/22
154/10 154/11	58/18 58/25 59/7	140/21 141/20
154/17 155/1 155/5	59/25 63/19 66/9	141/24 142/10
161/25 163/22	66/15 66/24 67/5	142/12 148/9
164/1 172/19 175/6	67/7 70/5 70/6	148/16 149/8
175/12 175/13	71/11 71/18 73/3	149/15 151/1 151/8
178/23 179/11	74/8 74/13 77/24	151/9 154/11
179/12 182/1	78/10 78/16 79/3	154/17 161/25
185/11 189/25	81/21 83/3 83/12	164/1 175/12
190/6 197/24	83/17 84/13 87/18	175/13 178/23
200/18 200/19	88/14 90/5 91/14	190/6 197/24
203/3 203/24	91/19 92/19 93/5	200/19 203/3
204/16 204/22	107/25 122/1 123/9	206/23 207/3
205/16 205/23	123/23 124/1	208/25
206/23 207/3	124/11 125/13	<b>Dr. Wright's [17]</b>
207/12 208/21	125/16 131/19	21/20 71/3 106/24
208/25 209/17	132/3 172/19 182/1	131/6 136/12
210/16 211/2 211/6	185/11 203/24	136/21 138/14
211/21 212/1 212/5	204/16 204/22	148/13 151/13
212/19 212/24	205/23 207/12	154/10 155/1 155/5
213/6 214/25	208/21 209/17	163/22 175/6
<b>Dr. Craig [4]</b>	210/16 211/2 211/6	179/11 179/12
54/11 54/20 115/13	211/21 212/1 212/5	189/25
214/25	212/19 212/24	<b>Draft [1]</b> 182/1
<b>Dr. Edman [123]</b>	213/6	<b>draw [2]</b> 112/15
3/12 3/15 5/12 6/3	<b>Dr. Edman's [5]</b>	209/8
7/11 12/7 13/18	6/8 14/21 70/4	<b>Dread [1]</b> 99/23

<b>D</b>	<b>edit [5]</b> 40/6	125/16 131/19
<b>driving [1]</b> 202/13	40/14 40/16 40/19	132/3 172/19 182/1
<b>due [1]</b> 231/25	49/20	185/11 188/8
<b>during [19]</b> 6/10	<b>editing [1]</b> 134/15	203/24 204/16
13/20 18/2 32/4	<b>editor [1]</b> 134/14	204/22 205/23
50/5 52/15 52/23	<b>edits [2]</b> 176/17	207/12 208/21
53/16 58/4 82/15	176/20	209/17 210/16
123/7 123/9 124/11	<b>EDMAN [133]</b> 2/5	210/22 211/2 211/6
148/9 204/23	3/12 3/15 3/25	211/21 212/1 212/5
205/23 210/16	5/12 6/3 6/19 7/11	212/19 212/24
211/5 211/20	12/7 13/18 13/19	213/6 213/9
<b>E</b>	14/7 14/22 15/12	<b>Edman's [9]</b> 3/22
<b>E-N-C-A-S-E [1]</b>	16/18 17/2 17/24	6/8 6/11 7/18
101/4	18/10 18/21 19/15	14/21 70/4 122/25
<b>E-N-C-E [1]</b> 101/5	19/25 21/13 21/19	187/6 205/16
<b>each [17]</b> 14/19	22/3 23/15 24/2	<b>education [1]</b>
22/25 35/11 40/25	24/13 24/22 25/11	126/14
85/11 85/16 85/17	25/14 25/19 26/9	<b>educational [1]</b>
91/9 108/11 156/2	26/11 27/3 27/12	215/15
177/14 186/4 197/7	28/12 29/25 30/6	<b>effect [5]</b> 70/4
200/20 214/21	31/8 31/24 32/14	70/11 73/4 73/9
218/19 243/1	33/3 34/7 35/16	73/19
<b>earlier [4]</b> 65/2	35/20 35/22 36/19	<b>effectively [1]</b>
84/18 85/9 118/19	37/13 38/4 39/2	51/18
<b>earliest [1]</b> 90/18	40/4 42/18 44/1	<b>effects [2]</b> 143/21
<b>earning [1]</b> 215/18	44/25 45/3 46/2	144/2
<b>ears [1]</b> 13/23	46/12 46/19 46/23	<b>efficient [1]</b>
<b>earth [2]</b> 127/21	47/6 49/12 52/17	51/15
127/24	55/19 56/12 56/24	<b>effort [1]</b> 80/17
<b>easier [3]</b> 17/21	58/18 58/25 59/7	<b>eight [17]</b> 55/23
231/8 231/16	59/11 59/25 63/19	77/14 78/1 80/8
<b>easiest [1]</b> 242/17	66/9 66/15 66/24	80/25 81/3 84/23
<b>easily [1]</b> 135/9	67/5 67/7 70/5	84/24 85/9 85/23
<b>Eastern [12]</b> 39/21	70/6 70/7 71/11	139/10 139/12
44/5 44/13 63/7	71/18 73/3 74/8	173/6 184/15
115/18 119/12	74/13 77/24 78/10	209/21 209/25
130/12 141/21	78/16 79/3 81/21	210/3
142/2 142/10	83/3 83/12 83/17	<b>either [10]</b> 3/12
145/11 206/15	84/7 84/13 87/18	91/12 96/2 97/2
<b>easy [1]</b> 135/12	88/14 90/5 91/14	97/7 116/22 131/6
<b>ECF [2]</b> 219/16	91/19 92/19 93/5	189/22 197/24
227/24	107/25 122/1 123/9	216/13
<b>ECF-497 [1]</b> 227/24	123/23 124/1	<b>electronic [7]</b>
	124/11 125/13	29/4 56/18 57/1



<b>E</b>	179/10 181/21	<b>enough</b> [4] 12/14
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 81 of 254	182/1 182/8 191/21 70/2 110/21 243/18	
<b>electronic...</b> [4]	192/4 193/11	<b>entire</b> [3] 72/14
57/23 81/7 117/12	193/20 193/23	72/15 115/5
174/17	193/25 194/14	<b>entirely</b> [2] 73/17
<b>elegant</b> [1] 232/5	194/16 194/21	130/5
<b>Eleventh</b> [1] 11/10	200/14 200/15	<b>entitled</b> [1] 151/6
<b>eliminate</b> [1]	200/20 200/24	<b>entries</b> [1] 139/11
111/8	201/6 201/8 201/15	<b>environment</b> [1]
<b>else</b> [15] 33/25	202/9 203/19 208/2	158/23
39/12 48/10 69/6	208/16 209/1 209/9	<b>equivalent</b> [1]
70/24 72/20 76/10	209/16 210/19	5/13
85/2 89/11 110/10	211/14 221/7	<b>erroneous</b> [5]
125/20 205/8	<b>emails</b> [18] 77/13	138/23 138/24
208/22 211/7 212/4	130/25 178/12	139/5 139/10
<b>email</b> [114] 8/3	178/20 179/2	139/16
17/3 19/8 19/15	179/12 179/20	<b>error</b> [2] 139/4
19/24 19/25 20/3	180/5 184/15	232/17
20/20 20/22 20/25	185/14 185/20	<b>escaping</b> [1] 117/4
21/3 21/14 21/18	185/22 185/24	<b>especially</b> [1]
22/17 22/18 22/20	203/8 203/17	93/16
23/5 24/25 25/12	203/18 203/22	<b>ESQ</b> [9] 1/13 1/13
28/1 28/3 36/20	209/10	1/16 1/16 1/19
37/13 39/6 41/15	<b>employer</b> [1]	1/19 1/20 1/20
41/17 41/21 41/25	102/19	1/21
42/9 42/20 43/13	<b>EnCase</b> [3] 101/4	<b>essence</b> [1] 34/14
43/15 43/16 43/20	101/11 101/12	<b>essentially</b> [16]
44/3 45/2 46/3	<b>EnCE</b> [2] 101/5	34/2 64/2 134/23
49/19 55/25 58/5	101/11	216/8 217/3 217/17
58/8 58/9 58/11	<b>encrypted</b> [1]	220/4 227/12
61/16 61/17 61/19	28/16	229/25 230/22
61/22 62/5 62/11	<b>end</b> [9] 15/22 54/1	230/23 231/2 232/3
62/14 62/16 62/17	79/12 81/4 152/12	233/8 235/18
62/25 63/13 63/15	155/22 200/16	238/18
63/18 64/8 64/9	203/19 212/15	<b>establish</b> [6]
64/11 64/13 64/14	<b>enforcement</b> [1]	51/19 51/25 123/18
64/18 65/3 65/3	113/22	151/7 169/1 221/13
65/3 65/5 65/9	<b>engaged</b> [2] 82/13	<b>established</b> [3]
65/21 66/1 66/3	216/10	10/13 11/24 200/24
76/16 76/18 77/25	<b>engineering</b> [2]	<b>establishing</b> [1]
80/25 81/6 81/12	216/17 233/18	52/16
81/14 86/6 131/10	<b>engineers</b> [1]	<b>Estate</b> [1] 1/4
131/11 161/18	216/16	<b>estimate</b> [2] 92/5
177/12 179/1 179/5	<b>English</b> [1] 4/22	98/4

<b>E</b>	17/17 18/14 18/16	203/13 203/15
<b>evaluating [1]</b>	18/18 21/23 21/24	205/3 220/6 220/8
11/23	24/6 24/8 24/9	221/10 222/6
<b>even [15]</b> 6/7 10/5	25/6 25/9 26/21	234/16 235/22
10/6 30/11 61/4	26/23 26/24 28/7	243/4 243/10
66/3 86/3 109/19	28/8 32/8 32/23	<b>EX [1]</b> 2/10
130/25 131/1	32/24 36/7 36/15	<b>exact [10]</b> 48/13
133/23 182/2	36/16 37/25 38/19	48/22 85/14 107/23
214/19 232/16	38/21 38/23 41/10	108/2 133/11 139/7
235/16	41/11 43/4 43/6	149/5 175/25
<b>even-handed [1]</b>	43/8 45/13 45/15	222/22
214/19	45/21 45/22 47/8	<b>exactly [15]</b> 67/24
<b>evening [3]</b> 239/8	47/9 47/11 47/13	98/4 109/4 110/16
239/15 243/20	51/2 51/17 51/19	110/20 111/4 138/6
<b>event [3]</b> 160/9	53/17 53/18 54/3	138/11 140/2 154/2
162/10 165/7	54/16 54/23 55/10	154/4 160/13
<b>events [2]</b> 94/12	55/11 60/13 60/15	163/23 169/3 208/1
121/5	60/17 61/8 67/10	<b>examination [28]</b>
<b>ever [10]</b> 35/25	67/11 71/15 71/17	2/5 2/6 2/6 2/8
45/6 97/24 100/2	71/19 74/25 75/2	13/20 15/10 67/22
142/8 175/23 180/1	75/4 77/19 78/24	68/24 92/13 92/24
189/3 189/10	79/1 81/19 83/24	92/25 100/7 123/6
189/10	84/1 84/3 85/8	123/8 125/14
<b>every [17]</b> 96/15	86/24 86/25 87/6	125/18 129/12
116/20 116/21	88/22 88/24 89/1	134/6 174/25 185/9
143/22 143/23	107/8 107/14	195/6 195/10
145/16 145/17	110/18 111/1	204/20 205/24
154/16 154/25	111/22 119/18	206/24 211/6
156/3 161/24	124/4 131/24	211/20 214/11
162/21 186/4	139/22 141/3 146/9	<b>examine [5]</b> 7/25
200/20 220/19	147/6 148/14	66/11 86/9 91/22
232/17 232/17	149/23 150/2	131/20
<b>everybody [1]</b>	160/25 161/1 163/5	<b>examined [3]</b> 77/16
217/10	164/13 164/18	119/15 181/5
<b>everyone [8]</b> 3/2	165/20 165/21	<b>Examiner [1]</b>
3/4 13/25 121/18	165/25 171/19	100/11
132/16 226/12	171/20 183/8 183/9	<b>examiners [2]</b>
226/20 240/6	188/5 188/6 188/22	100/16 100/25
<b>everything [3]</b>	189/23 195/1 195/2	<b>example [25]</b> 41/1
51/25 117/9 239/13	197/23 198/3	49/1 95/20 96/15
<b>evidence [137]</b> 5/5	198/10 198/21	108/8 110/6 111/8
6/18 10/22 10/24	201/4 201/21	111/14 111/19
15/16 16/2 16/15	201/24 202/5 202/6	112/5 115/24
	202/17 202/18	124/10 126/6 130/3

<b>E</b>	46/12 46/23 54/4	<b>expense [1]</b> 124/8
USCA11 Case: 22-11150 Document: 33-53 Date Filed: 11/03/22 Page: 183 of 234	54/24 55/2 55/4	<b>expenses [1]</b> 125/2
<b>example...</b> [11]	55/15 55/19 56/12	<b>experience [16]</b>
130/6 137/22	56/25 58/14 59/15	102/14 109/19
143/11 172/5 176/8	77/14 77/24 81/21	113/21 126/14
177/9 181/24	82/2 83/4 86/13	127/17 127/21
182/18 185/13	87/22 89/25 91/15	128/12 128/18
199/23 201/1	135/16 141/18	128/21 129/10
<b>examples [7]</b> 7/3	145/14 145/17	139/8 176/5 176/15
91/25 108/11	145/21 146/5	215/21 234/6 234/8
108/12 146/4	153/10 153/25	<b>experiment [5]</b>
146/19 202/3	154/2 164/16	95/23 96/2 97/6
<b>exceed [1]</b> 241/6	164/21 165/8	128/17 129/8
<b>except [3]</b> 41/25	171/20 188/6 200/5	<b>experimentation [2]</b>
139/21 179/5	200/10 201/1	95/16 95/18
<b>excerpt [2]</b> 33/4	201/10 201/12	<b>experimented [1]</b>
60/10	201/19 202/24	96/1
<b>Exch [4]</b> 82/9	203/10 210/13	<b>experiments [1]</b>
82/15 82/16 82/18	210/16 219/14	96/10
<b>exchange [12]</b> 8/19	219/15 220/6	<b>expert [46]</b> 6/3
9/12 9/15 11/11	220/25 221/10	6/10 6/12 8/25
11/15 11/19 17/3	222/2 222/5 222/13	11/12 11/13 52/4
21/5 21/9 25/12	242/14 243/8	53/9 53/10 62/20
87/17 131/10	<b>Exhibit 822 [1]</b>	69/21 69/24 82/24
<b>exclusion [1]</b> 3/21	54/4	92/21 94/10 100/2
<b>excuse [4]</b> 3/9	<b>exhibits [27]</b>	112/6 120/11
10/17 205/12	17/17 18/17 22/4	120/14 131/19
210/14	26/24 38/22 43/7	142/9 142/9 148/6
<b>excused [3]</b> 213/6	47/12 60/16 60/22	153/9 153/14
213/10 213/11	65/20 75/3 75/9	153/17 157/17
<b>excusing [1]</b> 69/3	78/25 84/2 84/20	168/9 169/12
<b>exhaustive [1]</b>	88/25 122/4 145/24	171/11 187/2
138/10	153/4 213/14 240/4	188/21 188/23
<b>exhibit [86]</b> 16/1	242/17 242/24	206/23 214/13
16/18 17/11 22/3	243/3 243/7 243/7	214/15 215/5
22/16 24/2 24/9	243/10	215/12 215/23
24/22 25/5 25/11	<b>exist [6]</b> 66/4	217/22 218/9
25/14 25/17 25/19	90/18 90/24 90/25	224/15 227/15
26/11 28/12 29/25	217/19 232/17	227/16 229/18
31/22 31/24 32/5	<b>existed [1]</b> 178/4	236/14
32/24 33/1 33/3	<b>expect [3]</b> 86/6	<b>expert's [3]</b> 4/7
35/18 35/20 36/7	94/25 241/13	124/7 171/16
36/16 36/19 44/25	<b>expectations [1]</b>	<b>expertise [5]</b>
45/13 45/22 46/2	128/12	50/12 54/14 147/16

<b>E</b>	<b>eye [1]</b> 80/4	70/5 114/5 152/10
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 84 of 254		182/9 185/25 231/7
<b>expertise...</b> [2]	<b>F</b>	242/14
216/11 233/3	<b>Facebook [2]</b> 23/8	<b>father [1]</b> 21/6
<b>experts [7]</b> 15/17	70/10	<b>feasible [2]</b>
67/9 70/13 71/15	<b>facilitate [1]</b>	152/22 152/25
148/23 174/18	233/11	<b>feature [2]</b> 6/25
205/8	<b>fact [31]</b> 4/14	182/8
<b>explain [12]</b> 20/17	4/16 8/18 9/8	<b>February [6]</b> 19/4
27/15 60/24 62/2	13/10 32/16 50/18	35/9 35/10 146/24
79/24 89/18 209/4	51/2 51/15 51/20	147/2 203/7
217/4 218/4 230/21	52/6 52/22 52/22	<b>February 28th [5]</b>
233/6 238/13	55/7 61/5 69/24	19/4 35/9 35/10
<b>explained [1]</b> 9/8	71/3 72/18 73/4	146/24 147/2
<b>explaining [2]</b>	88/4 92/8 107/10	<b>February 9 [1]</b>
6/16 65/2	109/12 110/3 122/9	203/7
<b>explanation [2]</b>	130/25 132/4 150/3	<b>federal [3]</b> 97/25
39/18 159/25	171/5 189/14 191/1	215/22 215/24
<b>explore [1]</b> 216/1	<b>facts [8]</b> 9/8 9/10	<b>felt [1]</b> 159/5
<b>explorer [1]</b> 23/1	9/11 10/18 10/20	<b>FERNANDEZ [1]</b> 1/21
<b>Explorers [1]</b>	11/6 186/16 189/21	<b>few [6]</b> 17/17
230/11	<b>factual [1]</b> 223/9	27/22 68/1 126/12
<b>exposition [1]</b>	<b>fair [2]</b> 108/14	126/17 202/2
52/14	110/21	<b>Fi [1]</b> 181/25
<b>expression [2]</b>	<b>fairly [2]</b> 135/13	<b>field [21]</b> 28/25
71/18 109/15	231/4	28/25 34/9 36/24
<b>extent [8]</b> 7/8 7/9	<b>fairness [1]</b> 184/7	43/14 43/16 43/20
8/13 73/8 73/12	<b>faith [1]</b> 51/19	57/24 62/14 64/16
125/3 179/19	<b>fake [5]</b> 7/19 8/3	64/17 77/2 79/13
240/11	199/16 204/2	86/2 86/3 86/5
<b>extract [5]</b> 18/2	204/10	92/21 94/1 181/22
79/4 167/13 168/2	<b>fall [1]</b> 231/9	233/3 238/15
168/23	<b>false [2]</b> 196/16	<b>fields [4]</b> 57/17
<b>extracted [23]</b>	196/17	173/16 218/17
26/12 38/5 38/9	<b>familiar [18]</b> 80/6	232/6
38/10 38/11 42/19	100/13 100/22	<b>fight [1]</b> 51/16
46/24 47/3 47/7	101/4 109/15 118/9	<b>figure [7]</b> 16/6
48/3 48/8 59/1	131/12 132/4	67/25 73/1 178/25
60/1 60/11 60/23	145/23 147/19	179/4 179/10
61/24 74/23 83/21	148/4 192/12 193/7	186/15
88/15 88/16 88/20	199/21 216/18	<b>figuring [1]</b>
89/20 90/5	216/20 233/3	117/17
<b>extremely [3]</b>	234/18	<b>file [26]</b> 27/5
135/2 135/5 135/18	<b>far [9]</b> 11/6 29/22	31/25 33/4 33/7

<b>F</b>	13/6 20/18 20/25	212/25
USCA11 Case: 22-11150 Document: 55-43 Date Filed: 11/30/22 Page: 85 of 254	52/3 64/7 67/25	<b>followed</b> [1]
<b>file...</b> [22]	33/8	132/15
33/9 33/16 34/3	70/18 88/11 94/11	<b>following</b> [9]
34/11 34/20 35/7	102/19 103/25	23/10 23/12 40/7
46/24 49/7 50/17	119/15 122/1	40/19 59/15 87/11
77/25 81/14 88/19	160/15 160/18	122/25 157/20
89/19 89/20 89/23	163/8 177/15	198/15
90/6 90/18 90/24	213/23 216/20	<b>follows</b> [4] 29/17
174/6 174/8 174/12	216/21 219/24	72/22 212/10
<b>filed</b> [4] 50/20	223/5 224/22	212/20
52/17 53/11 243/8	225/17	<b>font</b> [18] 88/19
<b>files</b> [7] 33/20	<b>five</b> [12] 30/5	89/19 89/20 89/20
33/21 91/5 91/8	35/11 39/16 47/21	89/23 90/5 90/12
91/9 91/11 91/14	61/3 61/6 66/16	90/14 90/18 90/24
<b>filing</b> [1] 122/18	91/14 186/20	90/25 91/5 91/8
<b>final</b> [5] 44/1	204/25 209/10	91/9 91/11 91/14
87/23 92/17 181/8	211/3	180/22 180/24
181/10	<b>fixed</b> [1] 46/8	<b>fonts</b> [2] 118/4
<b>finally</b> [1] 6/7	<b>flat</b> [4] 127/21	181/4
<b>find</b> [15] 9/17	127/24 127/25	<b>foregoing</b> [1]
60/3 67/23 70/7	128/8	244/10
91/5 92/4 113/9	<b>flaw</b> [3] 130/17	<b>forensic</b> [8] 97/18
113/17 114/18	137/1 137/8	97/22 97/25 100/7
120/14 127/7 159/7	<b>flaws</b> [5] 117/16	100/16 100/24
159/17 161/14	117/19 117/21	101/8 216/10
232/16	117/24 125/16	<b>forensics</b> [9]
<b>finder</b> [1] 4/16	<b>fledged</b> [1] 230/1	100/10 136/5 233/4
<b>finding</b> [5] 4/9	<b>flexible</b> [1] 13/4	233/6 233/7 233/9
4/10 7/24 83/8	<b>FLEXNER</b> [1] 1/15	233/13 233/16
135/15	<b>flip</b> [1] 37/16	238/16
<b>findings</b> [1] 79/7	<b>flipped</b> [1] 37/2	<b>forgeries</b> [30]
<b>fine</b> [1] 4/15	<b>FLORIDA</b> [9] 1/1	21/20 35/10 50/18
<b>finger</b> [1] 11/4	1/14 1/17 1/22	50/18 50/21 55/7
<b>fingerprint</b> [5]	1/24 244/3 244/7	75/25 80/20 91/21
160/4 160/6 160/8	244/15 244/18	91/25 92/3 92/6
160/9 160/12	<b>flsd.uscourts.gov</b>	92/9 110/20 111/5
<b>finish</b> [4] 72/10	[2] 1/25 244/19	124/3 124/5 124/18
72/12 119/5 119/8	<b>focus</b> [3] 23/18	145/16 169/5
<b>finished</b> [1] 119/6	124/20 229/8	185/23 203/25
<b>firm</b> [3] 215/7	<b>focused</b> [2] 93/12	204/25 204/25
215/8 215/9	93/15	205/4 205/9 205/17
<b>firms</b> [1] 216/10	<b>focusing</b> [1] 87/8	208/23 209/10
<b>first</b> [25] 5/9	<b>follow</b> [1] 212/25	209/16
	<b>follow-up</b> [1]	



<b>F</b>	<b>Forgery's</b> [1] 5/19	25/18 35/10 40/25
<b>forger</b> [118] 3/16	<b>forget</b> [1] 132/6	91/18 105/10 106/14
3/22 4/2 4/4 4/12	<b>form</b> [13] 96/18	120/13 120/17
4/19 5/1 5/4 5/20	115/4 117/15	184/10 195/11
5/22 6/2 6/13 6/17	119/12 119/20	195/13 207/13
6/21 7/1 7/2 7/2	149/9 150/4 150/6	207/22 217/6
7/7 7/19 7/22	150/13 151/6	<b>fourth</b> [5] 96/1
15/13 16/19 16/21	151/15 172/13	96/5 153/14 187/19
18/3 19/5 20/11	172/14	237/1
22/6 23/15 24/20	<b>formalizes</b> [1]	<b>framework</b> [1]
25/15 25/17 25/20	87/12	159/14
27/22 27/23 30/3	<b>format</b> [3] 79/13	<b>fraud</b> [8] 5/4 6/21
30/5 30/7 37/17	80/2 80/6	67/7 67/10 71/12
37/18 39/13 39/19	<b>formatting</b> [1]	71/16 104/10 107/3
41/6 42/8 42/9	182/15	<b>fraudulent</b> [3] 5/3
43/24 44/18 46/13	<b>former</b> [1] 87/15	5/21 6/18
46/15 46/19 47/17	<b>formulating</b> [1]	<b>free</b> [5] 6/5 6/9
47/25 48/11 48/11	212/2	7/25 53/9 124/13
49/13 49/20 49/20	<b>forum</b> [4] 228/20	<b>FREEDMAN</b> [5] 1/12
50/3 50/4 51/15	228/21 228/21	1/13 69/9 73/3
51/25 53/7 55/21	228/24	243/11
55/23 56/16 71/12	<b>forums</b> [1] 228/18	<b>freely</b> [1] 230/9
71/19 77/14 78/1	<b>forward</b> [9] 5/22	<b>Friday</b> [11] 12/18
78/11 80/8 80/11	12/8 28/9 51/7	12/19 13/1 13/3
80/24 81/3 81/25	57/19 73/11 74/13	13/5 13/7 56/4
84/23 84/24 84/25	149/21 154/21	77/6 87/11 239/25
85/2 85/9 85/23	<b>forwarded</b> [1]	240/12
85/23 87/23 87/23	210/13	<b>Fridays</b> [1] 31/6
88/3 88/16 89/12	<b>forwards</b> [1] 22/18	<b>friend</b> [1] 19/23
89/12 90/6 91/6	<b>found</b> [11] 3/25	<b>front</b> [10] 6/6 7/7
91/14 97/15 105/24	4/1 4/12 70/21	8/24 9/16 119/22
106/2 146/20	91/14 120/10 130/1	123/11 151/21
154/18 177/10	139/9 156/3 156/12	169/23 227/19
183/16 183/25	189/14	227/22
186/20 196/9	<b>foundation</b> [21]	<b>fulfilled</b> [1]
196/14 199/6	8/10 9/1 32/9	29/24
203/14 207/24	32/11 32/14 51/13	<b>full</b> [4] 51/24
208/1 208/10	131/19 164/2 166/2	52/13 68/22 241/23
208/11 208/13	168/14 168/20	<b>fully</b> [3] 229/23
208/13 208/16	169/6 170/5 190/11	229/25 230/1
209/8 209/20	191/13 193/4	<b>function</b> [2] 73/7
209/24 210/3 210/6	221/11 221/16	217/18
210/6 211/3 211/3	223/9 223/11 224/9	<b>functional</b> [1]
	<b>four</b> [15] 14/25	229/23

<b>F</b>	226/12 239/7	137/5 137/22
<b>fundamental</b> [1]	<b>geographic</b> [5]	151/12 157/7
218/1	63/5 115/15 141/24	203/13 219/14
<b>fundamentally</b> [2]	144/13 207/4	222/12 224/11
233/15 233/19	<b>GeoIP</b> [16] 42/22	228/6 231/12
<b>further</b> [16] 3/21	44/4 115/4 115/14	240/20
7/12 7/14 8/13	117/14 117/15	<b>given</b> [13] 6/20
11/9 12/6 22/12	118/8 118/11	6/21 8/4 92/19
32/18 74/4 92/11	118/14 118/18	92/20 97/21 98/1
92/23 204/15	118/21 125/16	98/7 105/17 148/6
211/24 213/3	130/16 137/4 206/1	151/2 151/4 157/21
243/14 244/12	206/4	<b>gives</b> [2] 118/14
<b>G</b>	<b>GeoIP2</b> [6] 117/12	119/23
<b>Gables</b> [1] 1/22	119/2 119/2 119/10	<b>giving</b> [4] 67/17
<b>gag</b> [1] 69/13	119/12 119/20	106/20 106/24
<b>gained</b> [1] 131/6	<b>Georgetown</b> [1]	136/10
<b>gallery</b> [1] 240/4	215/18	<b>glad</b> [1] 46/6
<b>game</b> [4] 218/20	<b>get</b> [28] 8/24 9/15	<b>global</b> [1] 216/7
218/22 218/23	14/20 15/5 21/5	<b>GnuPG</b> [1] 24/4
219/2	31/14 46/7 50/9	<b>go</b> [103] 3/2 7/5
<b>gaming</b> [1] 87/17	53/14 69/23 73/10	18/5 18/7 19/11
<b>gave</b> [5] 120/15	74/9 113/25 118/18	20/13 20/24 21/25
137/3 156/12 187/2	125/11 129/18	24/10 24/14 26/25
189/22	130/17 135/14	27/9 28/9 31/22
<b>general</b> [8] 94/5	138/5 139/25	32/25 35/17 36/17
96/13 126/24	144/24 144/25	38/6 38/24 39/9
140/24 142/16	154/15 160/10	40/1 41/12 41/18
180/16 181/19	160/11 165/8	43/9 44/22 44/23
218/12	218/25 242/1	46/25 47/14 47/25
<b>generally</b> [4]	<b>getting</b> [5] 7/9	49/10 49/23 54/2
113/22 179/7	46/17 51/24 52/13	55/12 59/2 59/10
232/24 238/13	154/15	60/6 60/7 60/19
<b>generated</b> [2]	<b>GIAC</b> [2] 100/22	60/20 63/9 64/23
159/22 233/8	101/2	65/16 66/6 66/13
<b>gentleman</b> [4]	<b>GitHub</b> [5] 30/15	66/14 67/2 68/6
30/16 52/12 150/3	30/19 30/21 30/22	69/24 72/5 72/11
151/10	30/22	73/1 75/6 76/7
<b>gentlemen</b> [14]	<b>give</b> [27] 6/18	77/18 80/21 81/18
14/18 50/14 66/19	13/19 13/21 14/1	83/10 84/4 85/5
74/12 121/12	14/2 16/23 65/4	85/19 86/12 87/25
125/10 150/24	67/9 71/15 93/5	89/2 89/3 89/14
184/20 185/8 199/1	104/15 104/18	90/3 91/3 102/17
211/25 213/16	104/21 104/24	112/22 112/22
	106/21 118/17	113/2 117/7 118/3

<b>G</b>	223/12 225/12	150/7 150/13 151/6
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 88 of 254	225/14 225/16	151/7 151/15
<b>go...</b> [30] 118/3	233/1 237/1 241/8	<b>hacks</b> [2] 147/17
119/14 121/3	242/25	149/4
121/21 123/4	<b>gold</b> [1] 227/12	<b>had</b> [90] 7/17
123/19 130/14	<b>gone</b> [1] 114/17	12/15 29/18 34/14
137/1 149/19 151/3	<b>good</b> [18] 3/2 3/5	34/21 36/11 68/14
160/18 165/15	8/7 10/15 14/18	70/3 73/4 83/13
190/25 191/17	14/19 15/12 26/4	86/6 100/2 101/18
204/25 205/16	66/18 82/7 82/13	102/14 108/12
207/9 209/20 216/3	93/3 93/4 120/24	109/25 110/3
219/22 220/9 225/9	121/11 204/22	110/10 113/3 113/3
229/6 230/10 231/7	214/2 239/4	113/5 113/14
236/25 239/2	<b>got</b> [9] 53/23	113/15 113/19
239/21 239/23	53/25 57/4 85/7	114/3 114/14
242/1	135/14 141/9	121/18 122/16
<b>go-round</b> [1]	160/20 182/2	123/19 125/11
160/18	227/19	125/16 125/17
<b>goal</b> [1] 242/1	<b>gotten</b> [2] 112/10	125/20 125/20
<b>goes</b> [6] 6/8 23/11	150/25	129/1 137/4 142/19
29/20 103/20	<b>government</b> [3]	144/25 145/21
112/21 211/5	9/20 215/25 216/1	147/1 148/16
<b>going</b> [65] 4/8	<b>grade</b> [1] 94/9	148/18 148/21
5/22 6/10 6/12 7/2	<b>graduating</b> [1]	149/2 150/25
7/5 7/18 8/1 12/12	102/20	151/10 151/21
12/17 13/11 13/12	<b>great</b> [2] 21/10	152/24 154/1 155/6
15/14 16/10 37/16	24/11	155/15 156/19
37/24 45/17 53/5	<b>grounds</b> [2] 8/9	159/6 159/9 159/10
58/22 60/5 68/24	52/16	159/14 159/17
69/20 71/24 72/5	<b>group</b> [3] 23/9	159/18 161/25
72/13 72/20 72/25	102/22 113/1	175/13 176/9
73/11 73/18 78/7	<b>guess</b> [3] 44/10	177/19 177/23
87/22 97/4 107/24	138/24 190/24	177/25 180/20
117/20 118/18		185/21 186/6
123/24 127/4	<b>H</b>	189/13 197/5 200/4
129/17 132/4 134/2	<b>hack</b> [1] 148/4	200/7 200/9 200/12
136/18 151/3	<b>hacked</b> [8] 148/11	203/6 203/9 207/3
151/12 158/8 159/7	148/17 148/21	220/4 220/17
159/17 159/25	150/12 151/7 151/9	222/23 229/23
164/10 165/10	151/13 151/18	229/24 230/15
165/11 165/12	<b>hackers</b> [1] 147/19	234/8 234/13
165/13 165/16	<b>hacking</b> [11] 110/6	234/21 235/21
167/10 175/15	147/21 148/8	236/11 237/14
197/19 213/25	148/14 149/9 150/4	241/9 244/8



<b>H</b>	77/18 80/19 81/9	6/6 6/16 6/20
USCA11 Case: 22-11150 Document: 63-81 Date Filed: 11/30/22 Page: 89 of 254	81/10 81/16 81/19	12/15 13/16 13/19
<b>hadn't</b> [3] 104/2	86/3 93/23 95/19	31/5 31/7 44/14
154/1 156/21	101/13 102/22	50/6 51/21 52/3
<b>half</b> [7] 6/4 22/10	102/25 103/2	53/16 69/18 69/19
27/7 29/12 84/17	104/18 109/3 115/3	69/19 69/20 69/20
103/24 103/25	115/7 117/16	70/9 70/10 71/16
<b>halfway</b> [1] 40/21	117/16 119/6	72/8 72/8 72/19
<b>Halloween</b> [1]	119/19 122/6	99/23 99/24 107/12
200/17	123/11 124/4 132/2	107/14 110/3 110/4
<b>hand</b> [4] 4/11	132/3 132/8 132/9	124/4 125/3 125/3
212/2 214/4 244/14	136/4 137/8 143/7	133/10 148/10
<b>handed</b> [3] 156/21	145/17 148/10	148/10 148/21
157/8 214/19	149/15 149/23	150/4 150/6 150/6
<b>handled</b> [1] 174/23	150/2 150/3 161/4	150/12 150/13
<b>handwriting</b> [2]	162/18 164/14	150/20 150/25
15/5 46/16	165/17 181/25	150/25 151/1 151/2
<b>handwritten</b> [1]	183/19 194/17	151/2 151/3 151/4
186/6	202/13 205/7	151/4 151/5 151/5
<b>happen</b> [7] 94/25	208/12 208/14	151/10 151/13
95/9 95/9 95/9	208/15 209/17	151/14 151/14
117/4 170/20	209/18 209/24	151/16 151/16
170/22	210/1 210/7 212/4	162/2 191/11 198/5
<b>happened</b> [8] 52/12	218/13 222/18	208/14 209/3
109/13 121/6 173/5	232/2 232/7 240/11	209/18 210/1
181/25 186/16	240/17 240/22	211/21 218/10
209/10 226/25	242/14	220/3 222/18
<b>happens</b> [3] 129/22	<b>hash</b> [3] 159/22	222/21 222/21
144/1 232/14	160/1 160/12	223/24 224/9 225/2
<b>happy</b> [1] 3/12	<b>hasn't</b> [2] 10/13	225/14 233/24
<b>hard</b> [4] 13/24	69/13	234/4 234/8 234/22
29/6 56/14 81/5	<b>have</b> [308]	235/16 235/18
<b>hard-copy</b> [2]	<b>haven't</b> [10] 59/19	<b>he's</b> [17] 4/23
56/14 81/5	132/21 132/23	4/23 5/21 6/19
<b>harder</b> [1] 231/9	133/17 167/4	6/20 32/15 52/4
<b>has</b> [89] 3/10 3/11	175/23 193/25	69/20 70/8 70/9
5/3 5/13 11/10	201/23 202/18	70/11 151/7 162/6
11/23 12/15 13/18	203/15	223/12 225/8
21/23 31/10 32/9	<b>having</b> [8] 13/24	225/12 225/16
50/12 51/14 57/3	59/14 83/8 109/9	<b>head</b> [1] 130/8
57/24 58/2 58/2	109/24 125/23	<b>Header</b> [1] 86/5
67/8 67/14 67/19	136/22 186/11	<b>headers</b> [9] 42/11
69/2 70/3 72/19	<b>he</b> [88] 4/2 4/14	42/19 76/20 77/1
73/4 76/22 77/2	4/15 4/17 4/23 6/1	78/17 79/8 81/11

<b>H</b>	165/16 184/8 191/9	154/13 216/8
USCA11 Case: 22-11150 Document: 83-13 Date Filed: 11/30/22 Page: 90 of 254	197/20 199/8	hits [57] 4/9 7/24
<b>headers...</b> [2]	204/25 208/25	31/1 36/23 52/18
86/1 208/9	209/3 209/8 210/10	52/20 53/10 67/7
<b>hear</b> [6] 51/22	210/16 214/13	67/8 67/19 68/25
67/25 122/19 130/4	214/16 214/23	70/9 71/18 71/19
149/25 150/1	215/2 224/19 226/8	72/8 82/6 82/23
<b>heard</b> [7] 10/19	240/9	86/10 99/14 100/3
109/17 135/25	<b>here's</b> [1] 142/8	119/6 123/3 123/19
148/11 148/12	<b>hereby</b> [1] 244/7	124/19 124/25
173/5 216/21	<b>hereunto</b> [1]	131/6 136/23
<b>hearing</b> [9] 4/16	244/14	138/17 148/10
78/5 105/12 105/14	<b>hernandez</b> [6] 1/23	148/10 148/16
123/10 124/10	1/25 244/5 244/17	148/20 150/8 151/8
124/14 129/2	244/17 244/19	151/10 151/15
214/20	<b>hidden</b> [1] 128/8	153/9 190/6 209/1
<b>Hearsay</b> [3] 36/8	<b>high</b> [2] 108/17	209/9 218/11
45/14 166/2	231/15	227/15 227/19
<b>held</b> [2] 87/15	<b>high-level</b> [1]	227/21 234/2 234/3
197/8	231/15	234/3 234/5 234/8
<b>Hello</b> [1] 82/7	<b>highlight</b> [9]	234/14 234/22
<b>help</b> [5] 4/8 94/10	36/25 37/5 47/22	236/1 236/6 236/22
100/3 222/25	56/3 56/10 61/11	237/14 238/11
235/16	112/14 197/19	239/24
<b>helpful</b> [1] 219/1	197/21	<b>historical</b> [7]
<b>her</b> [1] 186/1	<b>highlighted</b> [16]	11/11 113/23
<b>here</b> [64] 4/18 9/3	19/13 21/1 25/22	118/17 118/24
13/25 15/1 15/8	29/9 37/6 40/9	119/1 120/6 137/5
21/9 28/22 37/16	40/21 40/25 43/12	<b>history</b> [17] 28/22
43/11 44/14 49/21	49/16 57/18 75/15	30/15 30/20 30/21
50/23 53/15 58/4	77/4 86/23 188/15	30/22 50/11 51/1
68/3 69/17 69/21	195/19	52/2 52/4 52/8
72/17 73/24 82/10	<b>highlighting</b> [1]	52/11 59/9 65/19
82/15 86/1 86/5	141/12	77/8 123/13 128/8
86/20 93/5 103/21	<b>him</b> [14] 4/1 5/4	214/17
103/23 103/24	6/9 52/2 52/17	<b>hit</b> [2] 182/5
103/25 104/2 105/3	70/11 70/19 74/9	205/13
105/19 110/11	100/3 119/5 151/3	<b>hits</b> [1] 181/24
115/1 119/12	208/22 235/13	<b>Hmm</b> [1] 112/10
120/14 121/13	235/18	<b>hold</b> [7] 92/14
121/16 126/6	<b>himself</b> [5] 131/11	102/20 114/9 152/7
129/14 138/13	133/12 204/24	206/20 206/20
143/20 144/8	208/15 235/19	206/20
144/13 148/9 165/7	<b>hired</b> [3] 100/2	<b>holdings</b> [1] 86/10

<b>H</b>	164/12 165/9	43/15
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 91 of 254	165/17 168/3	<b>hour</b> [3] 101/24
<b>holds</b> [3] 23/10	168/12 169/11	177/14 215/13
29/20 198/15	171/6 171/15	<b>housekeeping</b> [1]
<b>honestly</b> [3] 103/2	182/22 184/17	121/25
114/16 183/4	185/2 185/4 188/21	<b>how</b> [82] 3/4 13/10
<b>Honor</b> [183] 3/14	193/2 195/1 202/5	22/23 25/19 30/14
3/16 4/20 5/24	204/13 204/15	34/24 37/18 40/17
6/16 7/5 7/13 7/15	204/18 205/12	40/22 40/23 41/6
8/7 8/13 8/22 9/14	206/16 206/19	41/14 46/19 47/17
9/21 10/4 10/11	207/14 210/20	49/1 49/13 56/12
10/15 10/16 11/17	210/23 211/4 211/5	56/16 62/24 63/25
11/22 12/9 13/14	211/16 211/20	66/11 69/9 69/12
13/16 13/23 14/9	213/3 213/5 213/7	71/22 76/2 76/23
14/24 16/22 18/13	213/8 213/13	77/14 80/7 80/9
18/15 21/22 24/5	213/19 213/25	84/15 92/3 94/15
24/7 25/5 26/20	217/21 218/6 218/9	101/5 103/2 103/22
28/6 32/7 32/9	218/24 219/4	122/16 122/25
32/13 32/19 36/6	219/12 219/18	133/15 134/23
36/8 36/9 41/9	221/9 221/11 222/5	135/14 137/11
43/3 43/5 45/12	222/24 223/8 224/4	138/3 138/5 138/6
50/10 50/25 51/3	224/6 224/11 225/4	143/11 148/4
51/5 51/6 52/15	225/8 225/11	152/24 155/8 160/6
55/9 66/16 66/22	225/23 226/8	160/13 172/23
67/4 67/12 68/11	226/10 227/14	173/5 173/19
68/15 68/22 69/6	227/16 227/22	174/20 197/7
69/11 69/17 70/6	227/25 228/4 228/6	201/16 203/3 203/4
70/12 70/18 70/21	229/19 236/13	203/4 206/24
71/9 72/5 72/17	239/4 239/20	215/11 217/8 218/1
72/23 72/25 73/22	239/23 240/10	218/18 218/22
74/2 74/5 74/24	241/2 241/3 241/3	218/23 219/11
75/1 78/21 78/23	241/10 242/12	220/2 230/3 230/6
83/23 88/21 89/24	242/17 243/5	230/8 230/12
92/12 92/17 99/6	243/13 243/16	230/14 230/24
121/11 121/23	<b>Honor's</b> [1] 3/13	231/3 231/3 231/12
122/1 122/12 123/5	<b>HONORABLE</b> [2] 1/10	231/17 232/21
123/14 125/6	123/11	234/15 235/22
131/16 131/18	<b>hook</b> [1] 240/9	238/20
135/22 135/25	<b>hope</b> [1] 82/12	<b>however</b> [7] 5/1
142/22 147/11	<b>hoping</b> [2] 13/4	30/9 77/6 79/12
149/19 150/15	13/18	139/8 144/11
150/17 150/19	<b>horizon</b> [1] 127/25	174/12
151/11 151/20	<b>Hospital</b> [1] 203/7	<b>hub</b> [1] 35/8
152/9 160/25	<b>hotwirepe.com</b> [1]	<b>human</b> [8] 31/17

<b>H</b>	195/15 207/6	172/18 174/10
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 92 of 254	207/15 211/8	177/20 187/18
<b>human...</b> [7] 79/9	212/19 219/19	187/19 189/19
79/19 116/23	228/2 229/21	193/21 196/12
127/21 128/7	236/16 239/15	197/19 200/9
134/13 231/16	<b>I'm</b> [125] 3/21	206/24 214/16
<b>human-readable</b> [1]	7/25 8/17 10/25	215/1 215/4 216/5
134/13	11/2 11/12 12/6	216/7 220/10
<b>humans</b> [1] 79/15	27/18 29/22 46/9	225/11 228/3
<b>hundred</b> [1] 107/15	59/14 59/14 59/16	228/14 228/14
<b>hundreds</b> [2]	59/16 59/17 69/5	229/12 229/20
152/19 152/23	69/11 69/15 70/5	233/1 241/8 241/19
<b>hypotheses</b> [1]	70/7 70/21 71/23	<b>I've</b> [13] 13/17
129/14	71/23 71/24 71/25	67/21 69/3 103/21
<b>hypothesis</b> [9]	72/1 72/4 72/10	107/8 108/3 109/17
94/20 94/23 96/18	72/16 72/23 72/24	142/22 144/23
97/3 97/11 126/23	73/18 74/2 74/3	172/18 200/6
126/25 127/2	78/7 83/14 93/7	201/16 227/19
128/23	94/6 95/3 95/5	<b>IBM</b> [6] 215/22
<b>hypothetical</b> [3]	101/6 102/4 107/24	216/3 216/13
96/16 168/13	107/24 108/8	216/15 216/25
169/11	108/12 111/6 112/5	217/2
<b>hypothetically</b> [2]	115/20 115/22	<b>ICANN</b> [4] 192/12
111/14 169/15	116/9 117/3 117/20	192/14 192/18
<b>I</b>	117/23 118/9 118/9	193/7
<b>I'd</b> [16] 70/23	118/18 119/18	<b>ID</b> [12] 26/6 48/14
92/5 103/19 131/16	122/25 128/21	48/15 48/23 48/24
146/9 163/1 163/4	129/1 130/3 130/4	48/25 49/2 49/5
171/9 171/16	130/5 130/5 131/12	49/8 75/18 75/21
194/23 219/9	131/22 131/22	85/14
219/22 221/9 222/5	131/22 132/3 134/1	<b>idea</b> [10] 67/22
222/24 226/10	136/18 137/10	96/22 101/10
<b>I'll</b> [36] 16/6	137/16 140/8	133/16 159/6
16/8 68/3 74/9	141/19 142/15	159/10 159/17
77/10 82/7 117/5	142/15 144/9	159/18 176/23
120/25 121/13	144/24 146/14	200/1
121/15 126/21	146/18 151/3 151/6	<b>ideas</b> [1] 218/19
128/3 136/14	155/3 156/6 157/5	<b>identical</b> [7]
142/25 147/6 148/1	157/20 157/22	41/24 41/25 42/7
149/11 152/1	158/8 162/11	57/2 57/9 81/7
157/11 169/1	164/10 164/19	182/13
182/19 182/20	164/21 164/22	<b>identified</b> [8]
182/24 183/15	165/14 165/14	56/18 57/1 110/11
194/13 195/3	166/23 168/9	125/22 155/6

<b>I</b>	<b>inappropriate [2]</b>	<b>indication [2]</b>
<b>identified...</b> [3]	<b>inauthentic [4]</b>	<b>indications [1]</b>
155/14 158/13	146/16 161/14	234/14
195/11	161/19 161/22	<b>indicator [5]</b>
<b>identifier [2]</b>	<b>include [1]</b> 71/25	40/18 176/17
132/14 160/2	<b>included [4]</b> 22/13	176/20 181/17
<b>identifies [2]</b>	218/7 218/11 234/2	194/17
48/24 48/25	<b>includes [3]</b> 6/21	<b>indicators [2]</b>
<b>identify [2]</b>	87/14 202/12	109/6 159/15
113/20 167/11	<b>including [4]</b> 6/19	<b>indirect [1]</b> 73/9
<b>identity [1]</b> 215/2	51/25 53/6 216/11	<b>individual [5]</b>
<b>IDs [6]</b> 48/14 49/3	<b>Inconsistencies [1]</b>	31/5 31/16 113/20
49/6 75/19 75/24	180/11	202/10 233/11
85/14	<b>inconsistent [4]</b>	<b>inevitably [1]</b> 5/2
<b>ignore [1]</b> 204/5	61/7 170/24 171/25	<b>Info [1]</b> 1/4
<b>illegal [3]</b> 98/15	181/17	<b>inform [1]</b> 214/16
98/18 98/19	<b>incorporate [1]</b>	<b>information [30]</b>
<b>illnesses [1]</b>	218/22	8/24 9/2 9/15 9/19
46/10	<b>incorporates [2]</b>	9/21 10/2 10/3
<b>immediately [2]</b>	218/16 218/19	10/8 37/9 61/13
70/22 79/14	<b>incorrect [2]</b> 4/15	61/15 64/7 118/24
<b>impeachment [1]</b>	52/5	119/22 120/9
73/14	<b>incorrectly [3]</b>	120/10 121/9
<b>impersonate [3]</b>	36/21 36/23 46/4	121/10 137/5 138/6
31/19 33/23 33/25	<b>incur [1]</b> 125/2	138/8 138/11
<b>implement [1]</b>	<b>independent [3]</b>	138/20 148/18
231/14	156/20 157/22	175/18 206/6
<b>Importance [1]</b>	239/13	223/12 224/5 225/7
86/2	<b>indicate [8]</b> 40/9	242/8
<b>important [4]</b>	40/16 50/23 81/11	<b>informed [1]</b> 217/2
95/12 99/11 175/15	192/6 225/1 226/6	<b>informs [1]</b> 218/23
217/16	234/8	<b>inherently [1]</b> 5/2
<b>impossible [1]</b>	<b>indicated [2]</b>	<b>initial [2]</b> 158/6
197/15	90/16 157/25	159/6
<b>imprimatur [1]</b> 9/5	<b>indicates [17]</b>	<b>initially [2]</b>
<b>improper [2]</b> 8/16	19/3 27/20 34/9	158/24 159/21
156/24	35/8 39/12 39/14	<b>initials [2]</b> 64/22
<b>improperly [1]</b>	40/7 43/14 43/16	144/10
9/17	43/20 48/11 61/22	<b>inquire [2]</b> 124/9
<b>improvements [1]</b>	75/19 84/10 85/15	184/19
232/15	88/3 89/7	<b>inquiry [3]</b> 110/17
<b>improving [1]</b>	<b>indicating [2]</b>	111/11 148/17
216/9	81/8 194/10	<b>Instagram [1]</b>

<b>I</b>	<b>interim [1]</b> 70/25	<b>investors [1]</b>
USCA11 Case: 22-11150 Document 33-13 Date Filed: 11/30/2022 Page: 94 of 254	<b>internal [2]</b>	216/8
<b>Instagram...</b> [1]	116/25 117/2	<b>invoice [4]</b> 103/7
69/15	<b>internally [1]</b>	103/10 123/15
<b>instance [12]</b>	241/15	123/16
47/19 48/14 48/23	<b>International [2]</b>	<b>invoices [2]</b> 103/3
48/25 49/3 49/6	86/18 87/19	123/16
75/19 85/14 98/6	<b>Internet [13]</b> 44/9	<b>involved [3]</b> 73/10
116/20 116/21	137/12 137/14	98/15 135/11
117/6	137/17 137/18	<b>IP [37]</b> 8/12 42/22
<b>instances [5]</b>	137/21 137/24	44/4 44/7 44/8
117/1 117/11	138/2 138/14	44/11 44/12 112/6
120/20 180/21	138/17 143/6	112/15 112/21
186/17	180/25 186/18	112/24 113/9
<b>instead [3]</b> 51/12	<b>interpreted [1]</b>	113/14 113/15
153/22 184/8	71/22	113/17 113/21
<b>instruct [1]</b> 8/1	<b>interview [2]</b>	113/25 115/16
<b>instructed [1]</b>	186/19 216/16	116/12 116/17
72/16	<b>interviewed [2]</b>	130/12 130/15
<b>instruction [8]</b>	30/16 30/25	137/11 137/14
3/23 5/20 7/9 8/4	<b>intimidate [1]</b>	137/25 138/3
11/5 12/1 68/21	73/23	139/13 139/15
69/6	<b>intimidating [1]</b>	192/19 206/1 206/2
<b>instructions [3]</b>	70/19	206/9 206/11
118/7 157/21	<b>intimidation [3]</b>	206/12 207/24
230/23	67/13 70/14 71/3	212/11 212/20
<b>instructs [1]</b>	<b>introduce [4]</b>	<b>IRA [10]</b> 1/3
11/15	17/17 74/24 124/1	154/19 154/21
<b>intellectual [3]</b>	221/9	161/21 177/12
10/11 10/23 137/16	<b>introduced [1]</b>	177/16 177/17
<b>intending [1]</b>	57/3	177/20 191/8 191/9
124/1	<b>introducing [2]</b>	<b>is [653]</b>
<b>intent [11]</b> 4/22	221/12 222/7	<b>isn't [69]</b> 9/19
4/24 5/3 5/22 6/18	<b>invent [1]</b> 93/7	16/3 57/14 93/18
6/22 67/11 71/12	<b>invented [1]</b>	94/16 94/16 94/25
71/17 71/20 183/22	104/16	95/7 96/11 98/15
<b>intentionally [1]</b>	<b>invention [1]</b>	98/20 99/11 104/10
170/12	218/5	104/25 105/5 106/8
<b>interact [3]</b>	<b>investigation [2]</b>	106/25 109/4
217/11 218/19	110/19 148/19	110/12 117/14
218/23	<b>investigations [1]</b>	117/16 117/18
<b>interchangeable [2]</b>	113/22	117/23 118/15
184/1 184/4	<b>Investments [2]</b>	119/15 119/24
<b>interchangeably [1]</b>	86/18 87/19	120/20 121/6 121/9
4/2		



<b>I</b>	34/9 36/9 36/10	233/11 233/19
USCA11 Case: 22-11150 Document: 83-13 Date Filed: 11/30/2022 Page: 95 of 254	40/18 40/22 41/2	241/5 241/12 243/1
isn't... [40]	41/11 45/15 45/17	item [1] 187/9
129/8 131/7 131/9	45/17 45/20 46/10	items [6] 3/6
139/3 139/6 139/10	52/13 53/4 53/11	138/23 139/6
145/5 145/18	54/15 54/21 54/23	139/16 141/10
147/17 149/7	55/11 57/4 57/17	243/19
154/11 154/15	66/16 67/4 69/14	iterative [1]
155/1 155/14	70/6 70/14 71/18	232/15
155/25 156/13	73/6 73/15 75/19	itmasters.edu.au
161/25 166/19	77/5 77/20 79/21	[1] 43/17
168/17 168/18	80/2 80/2 81/8	its [17] 3/23 4/17
170/17 170/19	82/6 82/23 87/6	6/5 70/15 118/22
171/14 175/24	88/3 95/3 96/10	138/23 139/3 139/6
178/13 179/15	96/11 100/10 101/5	171/16 174/2 179/6
181/21 182/4	107/16 108/19	199/21 214/17
182/13 185/14	111/22 115/3	222/7 224/17
186/3 186/6 186/16	115/21 116/8 116/9	227/18 232/8
197/18 197/23	122/22 127/17	itself [10] 9/22
200/5 200/10	127/19 128/10	10/2 54/14 81/15
201/22 202/14	128/18 131/5	93/23 138/25 164/6
223/8	131/21 131/22	198/19 208/8 232/4
<b>ISP [3]</b> 62/14	137/4 139/4 140/2	<b>J</b>
113/23 137/24	141/3 142/10	<b>Jamie [2]</b> 140/18
<b>ISSAP [1]</b> 238/2	143/10 146/9	142/18
<b>ISSMP [1]</b> 238/4	153/11 160/4	<b>January [4]</b> 227/3
<b>issue [12]</b> 3/10	160/25 161/9	227/8 230/19
3/14 3/19 9/14	162/24 163/11	231/22
10/5 66/23 68/23	164/18 164/18	<b>jargon [1]</b> 118/18
69/18 105/3 113/24	165/9 165/24	<b>JE052 [1]</b> 202/20
150/22 240/12	171/23 172/14	<b>job [1]</b> 216/17
<b>issued [2]</b> 21/6	173/9 176/1 179/5	<b>jobs [1]</b> 216/13
69/13	180/16 181/17	<b>John [1]</b> 22/17
<b>issues [8]</b> 26/2	189/3 192/23 194/6	<b>joint [5]</b> 201/1
72/21 105/8 166/19	198/20 201/9	201/10 201/12
239/22 240/23	202/23 205/12	202/23 203/10
241/1 242/9	205/17 207/14	<b>Jonathan [5]</b> 30/17
<b>it [518]</b>	210/22 210/25	30/17 30/25 31/1
<b>it's [132]</b> 3/24	212/22 215/10	186/19
6/12 6/22 9/5 9/22	216/22 218/1 220/6	<b>JORGE [1]</b> 1/19
10/4 10/5 10/5	221/6 224/6 227/21	<b>judge [93]</b> 1/10
10/11 14/19 21/24	227/24 230/9 231/6	3/5 3/8 3/19 3/20
29/3 32/22 33/9	231/19 232/14	3/24 4/1 4/3 4/7
33/12 33/17 33/24	232/19 233/11	

<b>J</b>	<b>jumping [1]</b> 129/12	146/10 161/2 161/5
USCA11 Case: 22-11150 Document: 52-51 Date Filed: 11/30/2022 Page: 96 of 254	<b>June: [25]</b> 56/4	162/15 165/18
<b>Judge...</b> [84] 4/10	58/3 63/18 65/25	165/23 169/4
4/11 4/11 4/13	75/12 76/13 77/6	169/23 169/25
4/16 4/18 5/1 5/4	77/6 77/8 79/10	183/7 184/22 185/5
5/6 5/12 5/16 5/19	79/10 81/6 82/12	185/6 188/11
6/17 6/22 6/23 7/1	87/11 87/12 87/13	188/24 191/18
7/4 12/4 16/3 16/6	90/17 123/10	194/1 195/15
16/6 16/9 33/13	123/24 124/16	196/23 197/2 201/3
34/4 45/14 51/9	131/11 133/5	201/9 202/7 202/23
51/24 52/5 52/8	133/13 189/7	204/2 204/5 204/10
54/13 54/21 59/14	189/14	205/24 206/5
62/18 67/21 67/24	<b>jurors [2]</b> 243/1	207/24 209/22
68/1 68/19 68/21	243/3	210/2 210/19
69/1 69/3 71/5	<b>jury [133]</b> 1/11	212/17 214/16
71/23 71/24 72/4	4/8 6/6 7/7 8/1	215/14 215/20
72/13 72/19 78/6	8/14 8/24 9/4 9/16	217/4 218/4 220/7
82/23 116/2 120/22	9/17 11/5 11/14	220/16 226/11
122/16 123/4	11/18 11/19 12/6	226/16 227/6
123/18 124/25	13/16 14/16 14/17	230/21 233/6 236/8
131/23 135/22	16/16 17/17 18/19	238/13 239/17
149/11 149/23	20/17 22/9 23/23	241/22
150/8 150/23	27/15 30/20 31/21	<b>jury's [2]</b> 122/24
151/19 158/8 163/2	35/17 42/14 43/12	123/7
164/14 164/16	44/22 45/23 49/1	<b>just [91]</b> 7/1 9/22
164/19 164/22	51/18 51/21 57/14	12/13 12/21 13/12
165/22 166/23	57/14 57/25 58/6	14/11 14/11 16/12
184/17 187/25	58/23 59/21 60/24	19/16 19/21 24/20
191/4 195/3 195/25	63/5 65/4 66/20	25/7 25/25 27/22
198/5 199/13	74/7 74/10 74/20	32/19 39/21 40/22
205/10 206/22	75/5 75/10 76/11	52/13 52/22 54/8
210/9 212/14	78/14 79/6 79/6	57/17 57/21 59/14
214/19 221/1 236/8	81/2 83/14 85/12	59/19 60/4 64/2
241/24	88/10 91/8 91/21	68/17 68/22 70/6
<b>judicial [15]</b> 3/9	92/7 92/19 101/23	75/8 76/11 79/21
8/5 8/8 8/11 8/14	106/13 111/22	80/4 80/10 83/9
8/17 8/23 9/3 9/9	112/9 113/13	83/9 86/4 87/3
9/15 9/23 9/25	115/23 119/19	94/8 96/15 104/4
11/7 11/11 12/1	119/19 119/23	110/14 116/6
<b>Judy [1]</b> 15/6	120/15 121/14	116/11 120/15
<b>July [8]</b> 61/3	122/11 123/22	120/21 120/25
103/4 103/6 168/19	123/23 125/7 125/8	122/22 123/6
169/2 169/16	127/13 131/25	124/15 126/20
172/13 172/17	132/2 134/6 141/3	126/23 128/17



<b>J</b>	31/25 33/4 33/7 33/7 33/16 33/20 33/21 34/11 34/20 35/7 <b>kilometers [2]</b> 116/13 140/14 <b>Kimon [4]</b> 235/8 235/11 235/14 235/17 <b>kind [13]</b> 65/7 72/13 103/19 118/5 143/22 143/23 159/14 169/3 194/10 217/8 220/17 231/2 243/18 <b>kinds [5]</b> 98/18 166/19 169/17 173/14 173/14 <b>KLEIMAN [92]</b> 1/3 1/4 17/4 17/5 19/9 19/25 21/12 21/13 22/18 24/25 25/13 27/25 28/3 33/6 34/10 34/15 34/23 34/25 35/3 36/21 37/14 45/2 46/3 56/1 56/8 66/10 80/25 82/5 84/13 84/15 87/10 87/11 87/13 87/14 93/7 101/18 104/6 104/25 131/10 132/8 133/5 133/5 133/9 133/12 154/19 154/21 161/6 161/9 161/21 162/3 162/5 162/10 177/12 177/16 177/17 178/12 178/14 178/16 178/20 179/1 180/2 180/3 185/19 191/8 195/20 197/14	197/16 197/24 198/11 199/10 200/18 200/19 200/19 202/9 203/2 203/4 203/6 203/18 208/17 211/15 214/24 234/13 234/14 234/20 234/24 235/1 235/5 235/12 235/22 236/20 237/14 238/10 <b>Kleiman's [14]</b> 177/20 177/21 179/2 179/19 191/9 203/20 233/21 233/23 234/2 234/6 234/11 235/14 235/25 237/7 <b>knew [3]</b> 7/17 234/14 235/22 <b>know [165]</b> 3/10 5/18 11/4 11/15 13/17 14/12 14/24 16/9 21/9 22/23 29/21 29/21 30/14 34/24 52/12 56/12 67/9 70/6 70/8 71/9 71/14 72/17 72/23 72/24 72/24 73/5 73/10 73/15 74/3 78/2 94/4 101/5 101/6 103/2 103/19 110/18 111/16 112/8 114/5 114/8 114/14 114/17 114/22 115/19 115/21 115/23 116/1 116/8 118/2 122/17 122/19 126/18 127/23 127/25 128/8 130/7 130/8 131/23 132/2 132/6
USCA11 Case: 22-11150 Document: 53-33 Date Filed: 11/30/2022 Page: 97 of 254		
<b>Just...</b> [38] 131/14 142/1 142/16 142/25 144/9 145/15 146/25 153/3 157/20 161/15 162/12 164/24 169/24 179/16 182/24 183/13 184/6 191/24 192/10 197/21 199/18 201/1 202/2 203/4 207/21 209/8 210/22 212/1 215/7 219/2 225/12 227/20 228/6 235/20 240/10 242/24 243/9 243/19		
<b>K</b>		
<b>KASS [7]</b> 1/20 2/8 119/17 213/22 218/7 218/13 219/1 <b>keep [8]</b> 60/5 165/10 165/11 165/12 165/13 165/16 200/1 237/1 <b>keeps [1]</b> 96/10 <b>KEVIN [4]</b> 2/8 213/25 214/5 214/10 <b>key [10]</b> 29/19 31/12 31/18 34/8 34/24 35/8 84/18 84/19 84/24 99/20 <b>keys [13]</b> 23/10 29/17 29/20 31/11 33/5 33/12 33/17 35/2 84/18 198/16 198/25 199/23 200/2 <b>keys.dat [10]</b>		

<b>K</b>	237/21 237/23	231/19
USCA11 Case: 22-11150 Document: 83-13 Date Filed: 11/30/22 Page: 198 of 254	237/25 238/2 238/4	<b>laptops</b> [3] 240/7
<b>know...</b> [105]	238/6 238/8 238/13	240/8 243/2
132/11 133/11	238/21 238/24	<b>large</b> [4] 76/21
133/15 133/17	241/18 241/22	76/25 155/20
134/5 134/14	241/25 242/3	230/22
134/20 138/12	<b>knowledge</b> [9] 66/2	<b>last</b> [20] 29/22
138/13 138/14	97/17 99/16 107/5	35/6 35/8 35/8
138/17 138/20	107/7 136/15	36/21 36/23 46/4
139/7 139/15	136/23 182/2	50/14 72/24 103/24
139/20 139/23	238/20	103/24 172/5 172/6
140/1 140/3 140/9	<b>known</b> [6] 65/24	172/12 172/20
140/13 140/16	67/15 192/23	173/3 194/21
140/18 140/21	221/24 226/24	198/18 201/17
142/3 143/11	232/22	241/23
143/14 144/17	<b>knows</b> [6] 99/15	<b>late</b> [1] 203/5
147/4 149/5 152/20	132/16 134/23	<b>later</b> [16] 13/12
153/4 154/2 156/10	157/1 166/24 181/3	19/20 27/7 46/10
157/2 160/12 161/9	<b>Kuharcik</b> [4] 12/15	71/25 90/11 123/7
163/23 164/12	13/3 239/24 240/13	128/6 158/6 158/6
164/16 165/5	<b>KYLE</b> [1] 1/13	158/12 158/12
172/18 174/15	<b>L</b>	182/1 192/4 202/22
174/20 174/23	<b>Label</b> [1] 34/9	219/5
175/2 175/5 175/11	<b>labels</b> [1] 90/8	<b>latter</b> [1] 65/12
176/14 176/15	<b>Lack</b> [3] 166/2	<b>law</b> [2] 113/22
177/4 177/25	168/14 168/20	216/10
179/19 179/21	<b>Ladies</b> [12] 14/18	<b>lawsuit</b> [1] 10/9
179/22 179/23	50/14 66/19 74/11	<b>lawyer</b> [2] 4/15
180/20 180/24	121/12 125/9	52/12
181/4 181/10	184/20 185/7	<b>lawyers</b> [2] 132/6
181/10 181/13	211/25 213/16	162/4
181/25 182/9	226/12 239/7	<b>lay</b> [5] 8/9 32/11
183/13 184/18	<b>lady</b> [1] 21/10	221/15 223/11
185/25 195/1 198/3	<b>laid</b> [3] 32/10	224/8
198/10 199/23	51/13 201/16	<b>laying</b> [1] 9/1
200/1 203/22 212/2	<b>language</b> [6] 149/5	<b>lays</b> [1] 10/21
215/11 217/13	231/5 231/13	<b>leading</b> [16] 33/13
219/3 219/24 220/2	231/18 232/1	34/4 34/16 35/13
222/24 225/2	233/24	48/4 54/21 57/5
227/20 228/2	<b>languages</b> [7]	58/15 62/18 63/22
229/10 229/15	218/18 230/25	77/9 82/23 90/21
230/3 230/8 234/20	231/7 231/10	123/10 207/14
236/4 237/13	231/11 231/15	208/18
237/17 237/19		<b>learn</b> [4] 100/2

<b>L</b>	120/21 123/25	<b>lets</b> [1] 30/23
<b>learn...</b> [3]	131/13 131/14	<b>letter</b> [5] 41/12
115/12 163/21	135/3 139/25 141/1	41/3 43/18 65/6
163/24	144/7 145/14	65/8
<b>learned</b> [4] 128/7	148/25 151/23	<b>letters</b> [4] 40/25
128/7 239/13	151/23 151/24	227/13 236/1 236/5
239/14	158/7 163/17	<b>letting</b> [3] 11/14
<b>least</b> [10] 79/8	166/12 167/14	73/10 74/3
91/16 103/18	168/5 178/10 183/5	<b>level</b> [4] 102/5
117/16 117/24	183/13 190/14	231/11 231/15
126/17 139/10	191/17 191/24	231/18
176/1 177/13 243/2	191/25 192/9	<b>Liberty</b> [1] 87/17
<b>leave</b> [3] 19/20	194/23 195/13	<b>license</b> [1] 87/16
19/21 82/10	196/12 199/3 200/4	<b>life</b> [3] 121/5
<b>leaving</b> [1] 116/11	201/1 203/24 208/3	189/21 203/20
<b>ledger</b> [1] 87/10	212/7 212/17 219/2	<b>light</b> [3] 13/10
<b>left</b> [24] 15/12	227/20 228/1	180/2 240/12
17/12 18/22 18/25	241/18 241/22	<b>like</b> [44] 12/16
20/20 22/11 24/14	242/13 242/24	12/17 22/24 25/5
40/6 40/9 40/21	<b>let's</b> [64] 12/6	29/3 29/3 33/12
44/3 49/15 50/2	14/15 17/14 30/19	33/17 44/8 62/13
57/21 74/18 74/19	42/18 43/11 44/6	65/7 65/9 70/23
81/15 84/7 84/10	46/25 47/22 49/10	73/25 95/19 97/25
86/5 89/17 205/19	57/19 58/18 58/21	108/3 109/1 121/4
206/3 208/9	58/22 58/22 59/5	142/5 142/17
<b>legal</b> [2] 70/1	63/11 64/5 65/16	144/23 145/5
114/20	66/14 66/19 72/12	158/12 160/4 160/5
<b>legitimate</b> [1]	74/7 75/15 78/13	160/10 160/12
223/22	79/3 81/3 83/6	163/1 163/4 171/9
<b>Leon</b> [1] 1/21	85/11 86/23 88/10	193/8 194/23
<b>less</b> [10] 17/5	88/11 89/2 89/3	206/16 219/9
80/19 133/24 139/8	89/14 111/8 111/14	219/22 221/9 222/5
153/18 153/22	111/21 118/11	222/24 225/4
207/12 207/21	121/12 125/7	227/12 229/8
233/24 238/19	126/20 131/25	232/22 241/11
<b>let</b> [64] 7/16	133/1 137/1 137/11	<b>likely</b> [12] 62/4
14/11 14/11 14/22	139/23 147/14	64/10 110/18
14/23 16/8 16/9	150/18 164/5 164/5	126/11 126/12
29/21 53/2 73/2	170/3 179/4 184/21	126/13 126/15
73/5 73/6 87/3	185/5 187/5 193/16	126/17 127/14
90/25 97/12 106/1	204/24 207/18	128/10 232/21
107/18 118/2 119/5	209/13 209/20	233/22
119/14 120/9	221/15 225/19	<b>limit</b> [1] 241/6
	231/8	<b>limited</b> [2] 121/8

<b>L</b>	200/10 227/2	141/17 141/24
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 100 of 254	242/19 243/6 243/8	142/13 206/8
<b>limited...</b> [1]	<b>listed</b> [2] 200/10	206/11 206/14
121/10	200/12	207/4
<b>line</b> [59] 29/22	<b>listen</b> [1] 19/22	<b>Lock</b> [7] 234/18
39/14 43/14 43/16	<b>listing</b> [1] 237/7	234/21 234/25
43/18 43/20 44/1	<b>literally</b> [2]	235/2 235/2 235/6
44/2 44/3 47/18	71/10 71/10	235/13
47/20 48/15 61/2	<b>litigants</b> [1]	<b>logo</b> [3] 227/9
61/4 61/17 61/19	73/16	227/11 227/12
61/21 61/22 62/3	<b>litigation</b> [16]	<b>long</b> [9] 21/11
62/4 62/16 62/24	21/20 35/23 36/1	22/12 22/20 22/21
63/13 63/15 63/16	36/13 45/4 50/5	69/1 79/21 79/25
63/17 64/9 64/11	52/23 53/16 53/21	84/15 154/1
64/13 64/15 65/18	56/13 72/20 78/3	<b>longer</b> [1] 123/1
65/21 68/12 69/20	124/18 132/11	<b>look</b> [65] 15/14
76/15 76/16 76/18	132/16 145/24	16/4 22/24 30/23
77/2 77/4 77/5	<b>litigation-related</b>	47/18 47/20 48/12
79/12 79/12 79/17	[1] 132/11	61/1 61/10 63/1
84/11 85/11 110/17	<b>little</b> [13] 13/12	63/8 64/15 72/19
111/10 123/12	15/2 22/12 44/6	75/15 85/11 97/12
148/17 151/13	46/9 63/8 126/22	115/9 116/14 118/3
151/24 184/19	129/1 132/6 132/8	118/15 120/17
186/14 196/19	215/14 215/20	128/14 132/24
198/18 206/2 209/8	226/16	133/1 142/11
220/15 220/16	<b>lived</b> [7] 44/14	143/17 144/5 145/5
<b>lines</b> [20] 48/12	115/13 115/25	148/20 149/1 149/4
61/10 61/14 61/15	140/18 140/21	154/14 155/22
62/1 62/3 62/6	142/12 142/18	155/23 156/16
63/11 63/12 64/5	<b>lives</b> [1] 207/20	156/18 158/7
64/5 64/7 75/8	<b>living</b> [2] 116/14	158/17 158/18
75/15 75/15 75/16	142/2	159/15 161/7 162/3
76/20 85/12 85/13	<b>Liz</b> [3] 12/20	162/4 162/10
113/5	12/20 240/15	162/24 164/5 164/5
<b>lineup</b> [1] 242/5	<b>LLC</b> [1] 1/4	170/3 170/10 172/6
<b>link</b> [6] 13/8	<b>LLM</b> [1] 190/6	177/7 177/9 179/2
14/13 240/2 240/9	<b>LLP</b> [2] 1/12 1/18	179/12 179/15
240/15 240/18	<b>loan</b> [1] 29/17	180/1 193/8 197/13
<b>links</b> [1] 234/16	<b>local</b> [1] 241/6	198/18 200/18
<b>list</b> [15] 72/21	<b>located</b> [3] 119/24	202/4 208/3 209/13
122/3 138/11	143/13 185/25	234/5 234/11
153/10 154/1 154/2	<b>location</b> [11]	<b>looked</b> [42] 4/19
196/21 196/22	42/23 114/25	19/16 20/15 39/17
196/23 200/5	115/15 118/14	56/24 57/22 75/24

<p><b>L</b></p> <p>USCA11 Case: 22-11150 Document: 5313 Date Filed: 11/30/22 Page: 101 of 254</p> <p><b>looked... [35]</b></p> <p>77/13 80/8 80/24  84/21 85/8 91/19  108/6 108/20  116/21 116/24  117/9 120/1 127/6  127/25 127/25  137/4 141/10  142/14 148/13  154/10 154/13  154/16 154/22  154/25 159/9  160/13 175/11  177/4 178/2 178/22  184/15 188/15  196/23 197/5  227/12</p> <p><b>looking [37]</b> 20/18  22/25 28/22 29/4  34/2 42/8 50/2  55/15 56/24 59/17  60/23 60/24 65/18  71/23 71/25 72/1  74/19 79/9 81/2  81/21 85/22 111/24  121/8 121/10  141/14 142/16  150/13 162/11  165/2 165/3 179/23  205/23 216/1  229/20 232/19  232/20 234/5</p> <p><b>looks [3]</b> 29/3  49/12 236/12</p> <p><b>lookup [16]</b> 42/22  44/5 44/13 113/11  115/4 117/13  117/15 118/12  119/12 119/20  119/25 130/16  192/12 192/15  206/1 206/5</p>	<p><b>lose [1]</b> 231/16</p> <p><b>loss [1]</b> 69/15</p> <p><b>lost [3]</b> 118/18  142/22 172/18</p> <p><b>lot [13]</b> 43/11  60/22 73/15 80/24  91/19 133/18  135/15 141/11  151/20 201/18  228/20 232/2  242/23</p> <p><b>loud [1]</b> 13/17</p> <p><b>Louis [1]</b> 211/15</p> <p><b>low [1]</b> 231/11</p> <p><b>low-level [1]</b>  231/11</p> <p><b>lower [1]</b> 231/18</p> <p><b>lower-level [1]</b>  231/18</p> <p><b>Ltd [4]</b> 58/10  86/18 86/19 88/5</p> <p><b>lunch [4]</b> 121/13  121/15 121/19  125/11</p> <hr/> <p><b>M</b></p> <hr/> <p><b>M-A-D-U-R-A [1]</b>  214/10</p> <p><b>machine [2]</b> 170/18  244/8</p> <p><b>mad [1]</b> 56/6</p> <p><b>made [16]</b> 4/24  6/25 20/21 39/4  49/16 49/17 53/16  66/11 109/24  123/17 154/3 154/4  159/1 159/1 189/11  218/13</p> <p><b>MADURA [47]</b> 2/8  214/1 214/5 214/10  214/13 214/20  214/23 215/14  215/20 216/3 217/4  218/9 219/9 219/22</p>	<p>220/2 220/12  220/20 221/3  221/20 222/12  222/15 222/24  223/5 223/10  223/15 224/15  225/4 225/22 226/2  226/23 227/8  227/16 228/11  229/3 229/5 229/8  229/10 229/15  230/18 233/1  235/25 236/11  236/19 237/13  239/18 242/2  242/11</p> <p><b>Madura's [1]</b> 218/8</p> <p><b>mail [8]</b> 42/19  76/15 76/20 77/1  78/17 79/8 81/11  208/9</p> <p><b>mailing [1]</b> 227/2</p> <p><b>main [2]</b> 217/4  218/17</p> <p><b>maintained [1]</b>  46/9</p> <p><b>maintaining [1]</b>  215/23</p> <p><b>major [1]</b> 217/7</p> <p><b>majority [1]</b>  203/20</p> <p><b>make [37]</b> 3/16  3/18 12/13 46/8  73/12 82/13 94/15  94/23 95/13 95/20  97/11 107/18  110/10 112/18  122/3 122/24  125/21 126/21  127/4 132/7 135/3  135/6 137/11 145/5  149/3 168/9 169/25  225/16 226/10  232/15 233/19</p>
--	---	--

<b>M</b>	125/23 130/18	<b>masters [1]</b> 93/12
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 102 of 254	133/19 133/22	<b>match [9]</b> 12/8
<b>make... [6]</b> 233/20	135/10 135/12	20/22 24/22 27/25
238/18 239/9	136/11 152/24	39/6 90/3 90/8
242/18 242/22	153/8 154/6 159/11	122/9 236/6
243/19	159/13 159/18	<b>matches [3]</b> 89/9
<b>makes [3]</b> 181/15	175/23 175/25	122/4 242/20
231/13 231/15	176/9 176/11	<b>matching [1]</b> 59/16
<b>making [4]</b> 3/21	176/17	<b>materials [2]</b>
73/16 136/9 218/25	<b>manual [1]</b> 130/2	233/25 235/21
<b>manage [1]</b> 19/19	<b>manually [1]</b> 126/4	<b>matter [11]</b> 32/20
<b>management [2]</b>	<b>many [19]</b> 67/13	36/10 52/6 54/22
215/19 216/17	92/3 101/18 103/22	78/5 95/3 105/13
<b>managerial [1]</b>	105/20 120/20	123/5 148/15
235/3	133/8 133/8 147/21	186/14 214/15
<b>manipulate [2]</b>	152/24 197/7 202/2	<b>matters [2]</b> 121/25
63/19 63/25	230/3 230/6 230/12	216/10
<b>manipulated [28]</b>	230/14 230/14	<b>MATTHEW [1]</b> 2/5
4/3 7/21 76/24	232/21 242/24	<b>MaxMind [11]</b>
81/8 81/16 106/5	<b>map [2]</b> 115/9	118/22 137/1 137/5
107/5 107/10	116/14	137/8 137/11 138/3
110/22 130/23	<b>maps [1]</b> 42/22	138/5 138/10
152/15 156/3 156/8	<b>March [17]</b> 20/21	138/22 138/25
156/13 156/17	24/17 24/18 27/6	139/16
156/19 158/13	27/21 39/4 146/23	<b>may [56]</b> 3/11 5/16
162/24 169/19	147/3 168/18 192/4	5/24 11/12 13/14
175/21 178/20	193/11 194/4	15/8 51/6 52/7
180/9 183/19	194/16 200/15	52/9 54/23 67/24
186/22 190/1	200/16 200/24	70/10 70/10 70/13
194/18 201/21	203/19	73/19 79/14 82/12
202/17	<b>mark [2]</b> 227/5	90/17 90/18 112/10
<b>manipulating [1]</b>	229/3	116/2 119/8 124/12
136/24	<b>marked [7]</b> 145/24	131/24 135/22
<b>manipulation [17]</b>	153/4 153/7 163/9	136/2 136/16
5/14 5/17 61/8	163/11 163/15	136/16 136/24
80/18 80/19 107/3	242/21	142/7 147/11
110/1 130/2 156/16	<b>marker [2]</b> 40/5	149/11 149/12
162/19 176/22	40/19	155/3 161/2 163/2
181/17 184/1 192/7	<b>markets [1]</b> 118/22	164/13 165/17
193/13 194/10	<b>Maryland [2]</b>	168/1 169/11
209/4	215/17 216/22	169/13 173/14
<b>manipulations [23]</b>	<b>master's [3]</b>	188/11 197/7
15/19 109/8 109/23	190/14 190/21	197/10 198/7
110/10 125/21	215/18	198/20 199/3



<b>M</b>	155/3 156/18 158/7	9/23 51/16
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 103 of 254	163/17 166/12	<b>media</b> [3] 70/9
<b>may...</b> [8] 204/13	167/14 168/5 168/5	174/9 174/11
217/25 225/23	168/10 168/25	<b>medium</b> [1] 69/15
226/8 232/17	168/25 169/2	<b>meet</b> [1] 241/24
232/23 240/10	169/16 172/22	<b>memory</b> [4] 146/7
241/5	173/23 178/10	164/11 164/24
<b>May or</b> [1] 90/17	179/8 183/5 183/13	195/8
<b>Mayaka</b> [2] 58/5	184/11 184/17	<b>mention</b> [1] 12/9
58/11	189/21 190/14	<b>mentioned</b> [6]
<b>maybe</b> [7] 11/2	191/17 191/24	125/16 220/1
22/10 72/2 182/2	191/25 192/3 192/9	222/23 233/16
226/15 233/10	193/12 193/19	235/16 244/9
233/11	194/8 194/23	<b>Merriam</b> [1] 4/20
<b>MCGOVERN</b> [3] 1/20	195/13 196/12	<b>Merriam-Webster</b> [1]
67/18 68/17	199/3 200/4 201/1	4/20
<b>MCSE</b> [1] 238/6	203/24 205/12	<b>message</b> [12] 16/12
<b>me</b> [118] 3/9 7/16	207/17 208/3	28/18 29/7 29/8
10/17 14/22 16/9	210/14 212/6 212/7	29/12 30/8 30/12
19/22 21/11 37/9	212/17 219/14	64/8 67/8 71/3
53/2 68/14 69/7	224/11 227/19	82/7 210/13
71/6 71/6 73/2	227/20 227/23	<b>messages</b> [6] 28/19
73/6 87/3 89/18	228/7 233/24 239/4	41/24 67/19 68/8
90/25 96/8 97/12	242/13 242/24	69/14 70/10
106/1 107/18	<b>mean</b> [24] 30/20	<b>messaging</b> [1]
109/11 109/18	38/10 95/3 98/21	28/16
117/4 117/20 118/2	107/13 109/12	<b>messed</b> [1] 97/11
118/25 119/14	109/20 111/6	<b>MESTRE</b> [2] 1/18
120/9 120/21	112/23 126/18	1/19
123/25 126/2	131/2 134/14	<b>met</b> [1] 3/10
127/20 129/25	138/24 143/25	<b>metadata</b> [103]
130/22 131/2	144/5 156/6 156/10	26/12 26/13 26/17
131/13 131/14	157/17 170/17	27/5 37/19 37/21
133/18 134/9	182/15 183/17	38/5 46/20 46/24
134/10 135/1 135/4	185/17 185/23	47/3 47/18 47/25
135/5 137/2 138/22	238/19	48/3 48/8 48/10
139/25 141/1	<b>meaning</b> [1] 106/15	48/12 59/1 60/1
142/22 144/7	<b>means</b> [8] 5/2	60/10 61/1 61/7
145/14 146/25	109/25 110/10	61/24 62/1 62/24
148/19 148/25	125/21 126/13	63/8 75/13 75/13
150/1 151/12	137/14 171/2 175/5	75/17 76/11 76/14
151/23 151/23	<b>meant</b> [3] 134/2	81/8 83/21 88/1
151/24 153/6	165/14 165/15	88/7 88/15 88/16
154/14 154/14	<b>mechanism</b> [3] 9/15	89/5 89/6 108/9

<b>M</b>	<b>MICHAEL [1]</b> 1/21	<b>minor [1]</b> 203/7
USCA11 Case: 22-11150 Document: 58-18 Date Filed: 11/30/2022 Page: 104 of 254	<b>microphone [1]</b> 66/19	<b>minute [7]</b> 104/254
<b>metadata...</b> [64]	213/22	66/21 117/22
108/25 109/3 115/4	<b>Microsoft [14]</b>	150/23 184/21
116/22 117/8 127/6	59/8 65/22 65/23	184/23 228/7
128/11 128/14	89/21 89/22 90/10	<b>minutes [6]</b> 27/7
128/19 129/11	90/13 90/15 91/10	39/16 47/21 66/17
129/21 130/1	91/12 180/22	68/1 68/4
130/20 130/23	180/24 181/5	<b>misheard [1]</b>
135/3 135/6 135/16	181/12	197/10
141/10 143/12	<b>mid [2]</b> 91/16	<b>misleading [2]</b>
143/15 143/17	206/7	67/10 71/15
143/20 143/22	<b>mid-2019 [1]</b> 206/7	<b>misrepresenting [1]</b>
143/23 144/3 144/6	<b>middle [4]</b> 4/19	150/24
144/13 166/20	6/1 103/18 112/13	<b>misstates [3]</b>
167/10 167/11	<b>might [17]</b> 70/25	50/11 51/1 197/1
167/13 167/25	94/12 96/15 96/18	<b>mistakes [1]</b>
168/2 168/6 168/17	96/20 96/22 96/23	133/22
168/19 168/23	97/1 97/6 97/11	<b>misunderstanding</b>
169/1 170/4 170/10	113/18 144/25	<b>[1]</b> 11/3
170/11 170/14	159/11 164/11	<b>misunderstanding it</b>
170/19 170/21	180/2 192/17	<b>[1]</b> 11/3
170/23 170/25	197/20	<b>MITRE [1]</b> 102/15
172/1 173/14	<b>miles [4]</b> 115/13	<b>modes [1]</b> 88/1
173/20 173/21	202/12 207/13	<b>modification [6]</b>
173/23 173/24	207/22	5/14 5/17 175/18
174/2 174/3 174/4	<b>million [5]</b> 139/10	176/20 184/1
174/6 174/8 174/10	139/13 142/2 230/7	184/10
174/11 174/12	230/17	<b>modifications [3]</b>
175/17 181/20	<b>millions [2]</b>	49/16 49/17 135/6
186/9 191/12	138/22 139/5	<b>modified [21]</b> 4/3
<b>method [14]</b> 94/2	<b>mincing [1]</b> 7/22	7/21 27/7 39/16
94/4 94/9 94/11	<b>mind [4]</b> 92/7	40/8 40/10 40/17
95/4 95/18 96/21	120/25 172/18	40/19 47/21 61/3
127/5 128/22 129/7	240/12	61/5 63/3 76/14
129/23 134/11	<b>mine [2]</b> 26/3 93/7	76/21 106/11
175/16 178/22	<b>mined [6]</b> 104/18	141/11 170/12
<b>methods [1]</b> 52/10	229/25 230/3 230/6	170/15 172/5 172/6
<b>Mexico [1]</b> 144/14	230/12 230/16	173/3
<b>Miami [8]</b> 1/14	<b>miners [2]</b> 217/19	<b>modify [4]</b> 48/9
1/17 1/24 1/24	218/23	49/4 173/1 173/2
126/7 244/15	<b>mining [4]</b> 26/5	<b>modules [1]</b> 232/3
244/18 244/18	195/21 196/7	<b>moment [19]</b> 13/14
<b>mic [2]</b> 13/20 14/8	217/15	25/7 66/24 116/2



<b>M</b>	118/22 118/23	165/10 166/13
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page 103 of 254	126/11 126/12	167/14 169/22
<b>moment</b> ... [15]	126/13 126/15	182/19 183/6
116/11 135/22	126/17 127/14	187/13 188/16
142/25 145/15	128/10 178/11	197/19 201/5 218/9
147/11 163/2 168/5	178/16 239/1	220/5 220/9 220/24
171/6 182/20 191/4	<b>mother</b> [2] 12/16	222/13 233/1 236/7
191/17 199/13	207/20	236/25
204/13 205/12	<b>motion</b> [13] 3/16	<b>Mr.</b> [101] 3/10 5/8
224/11	3/18 3/21 10/21	6/1 6/5 6/8 6/10
<b>Monday</b> [1] 103/24	50/9 122/18 122/22	6/15 7/8 12/15
<b>monitor</b> [2] 73/7	213/20 240/19	13/3 16/4 16/14
73/18	240/22 241/4 241/8	16/23 17/5 32/18
<b>monitoring</b> [1]	241/13	51/10 53/2 62/21
68/23	<b>motions</b> [1] 122/14	67/6 67/18 68/10
<b>Monotype</b> [1] 91/12	<b>motivations</b> [2]	69/9 71/2 71/11
<b>month</b> [2] 103/11	104/12 106/17	73/3 82/13 86/24
153/18	<b>motive</b> [1] 211/22	87/11 87/13 87/14
<b>more</b> [29] 3/11	<b>motives</b> [1] 183/22	99/2 100/2 112/18
60/6 62/8 62/10	<b>move</b> [34] 18/13	119/17 121/20
63/8 65/9 65/11	23/24 24/5 26/20	121/22 123/8
66/17 67/13 102/25	32/7 35/16 36/6	123/25 185/19
103/7 103/12	37/10 37/24 38/18	188/8 200/19 202/9
116/13 123/5	43/3 45/12 47/9	203/2 205/24
124/21 126/22	57/19 60/12 78/21	210/22 211/21
132/14 139/12	83/2 83/23 88/21	213/22 214/13
140/14 151/21	131/16 158/8 170/3	214/20 214/23
173/25 186/2 188/9	171/16 183/15	215/14 215/20
199/22 231/12	187/25 193/2	216/3 217/4 218/7
231/13 231/19	194/23 195/3 219/5	218/8 218/10
238/19 242/23	219/9 219/19 222/5	218/13 219/1 219/9
<b>morning</b> [27] 3/2	233/1 242/7	219/22 220/2
3/4 3/5 8/7 10/15	<b>moved</b> [2] 87/13	220/12 220/20
13/5 13/7 14/18	216/5	221/3 221/20
15/12 15/15 91/19	<b>moving</b> [6] 73/11	222/12 222/15
91/22 92/20 96/16	174/1 174/4 174/9	222/24 223/5
146/15 195/14	174/10 228/15	223/10 223/15
196/1 196/9 196/13	<b>MR</b> [37] 2/5 2/6	224/15 224/19
197/10 197/11	2/6 2/8 7/14 72/11	224/21 224/24
199/4 239/8 239/16	111/16 112/8	224/25 225/4
239/19 241/16	112/14 116/8 132/8	225/22 226/2
243/18	133/2 141/2 161/10	226/23 227/8
<b>most</b> [15] 101/8	161/15 163/4 163/5	227/16 228/11
108/21 118/22	163/10 164/9	229/3 229/5 229/8

<b>M</b>	225/22 226/2	239/2
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page 166 of 254	226/23 227/8	MVP [1] 238/8
<b>Mr. .... [14]</b> 229/10	227/16 228/11	<b>my [122]</b> 5/19 8/18
229/15 230/18	229/3 229/5 229/8	13/23 15/5 15/6
235/12 235/25	229/10 229/15	21/6 23/16 24/3
236/11 236/19	230/18 235/25	27/17 30/4 32/3
237/13 239/18	236/11 236/19	37/15 38/14 39/3
239/24 240/13	237/13 239/18	44/22 46/16 50/8
242/2 242/11	242/2 242/11	55/8 55/20 55/22
243/11	<b>Mr. Madura's [1]</b>	62/10 66/2 68/20
<b>Mr. Andreou [1]</b>	218/8	68/21 69/5 70/24
235/12	<b>Mr. Rivero [21]</b>	78/4 79/16 81/24
<b>Mr. Antonopoulos</b>	3/10 5/8 6/1 6/5	83/18 89/17 92/22
<b>[4]</b> 218/10 224/19	6/8 6/15 7/8 16/4	95/8 95/8 97/17
224/24 224/25	16/23 32/18 51/10	98/8 98/21 99/16
<b>Mr. Antonopoulos'</b>	67/6 67/18 68/10	101/1 101/12
<b>[1]</b> 224/21	71/2 71/11 121/20	102/19 103/16
<b>Mr. Chambers [1]</b>	121/22 123/8	107/22 108/4
6/10	205/24 211/21	108/16 109/18
<b>Mr. Edman [2]</b>	<b>Mr. Roche [5]</b>	109/20 111/3 111/3
188/8 210/22	16/14 53/2 62/21	112/6 113/11
<b>Mr. Freedman [3]</b>	86/24 123/25	113/21 115/17
69/9 73/3 243/11	<b>Mr. Shah [1]</b>	117/3 118/25
<b>Mr. Kass [5]</b>	112/18	120/12 126/6 126/9
119/17 213/22	<b>Mr. Ulbricht [2]</b>	126/25 127/1 127/5
218/7 218/13 219/1	99/2 100/2	127/17 128/10
<b>Mr. Kleiman [8]</b>	<b>Mr. Wilson [1]</b>	128/13 128/18
17/5 87/11 87/13	82/13	128/20 128/23
87/14 185/19	<b>Ms [1]</b> 68/17	129/5 129/6 129/9
200/19 202/9 203/2	<b>Ms. [1]</b> 67/18	129/10 129/12
<b>Mr. Kuharcik [4]</b>	<b>Ms. McGovern [1]</b>	129/17 129/19
12/15 13/3 239/24	67/18	129/20 129/21
240/13	<b>much [13]</b> 82/8	130/8 132/25
<b>Mr. Madura [41]</b>	103/2 122/25	136/18 139/8
214/13 214/20	156/21 156/22	142/19 142/22
214/23 215/14	157/7 157/8 215/11	144/24 146/7
215/20 216/3 217/4	231/12 231/13	146/18 152/16
219/9 219/22 220/2	231/19 232/22	153/20 154/24
220/12 220/20	233/24	155/2 156/5 156/8
221/3 221/20	<b>multiple [3]</b> 147/1	157/23 158/24
222/12 222/15	147/1 177/18	172/18 172/25
222/24 223/5	<b>multiply [1]</b>	173/16 174/13
223/10 223/15	230/13	174/17 176/1 176/4
224/15 225/4	<b>must [2]</b> 12/9	178/18 179/18

<b>M</b>	124/25 238/21	80/21 81/18 84/4
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 107 of 254	238/25	85/5 85/19 86/12
<b>my...</b> [20] 184/19	<b>necessitated</b> [1]	88/11 89/14 91/3
185/24 186/14	124/12	103/11 117/3
190/24 195/8 196/4	<b>need</b> [30] 13/7	184/19 187/15
201/20 202/10	14/12 17/17 23/7	201/17 202/11
202/11 203/8 203/9	26/1 26/2 26/4	202/11 213/12
203/12 209/12	31/8 31/10 31/12	226/2 226/24
215/7 215/16	70/13 73/1 113/22	226/25 242/3
216/17 233/23	128/13 128/16	<b>Nguyen</b> [9] 36/22
235/1 244/11	128/22 129/21	37/8 37/14 39/7
244/14	130/3 130/5 143/17	45/2 46/4 178/14
<b>myself</b> [4] 19/21	143/25 144/1 144/5	185/25 208/17
21/6 219/16 220/18	157/23 159/5 196/6	<b>nice</b> [2] 121/18
<b>N</b>	201/9 208/2 208/7	243/20
<b>Nakamoto</b> [6] 220/3	241/13	<b>nickname</b> [1] 99/23
221/6 223/16	<b>needed</b> [1] 235/16	<b>night</b> [3] 4/19 6/2
223/23 224/7 227/2	<b>needing</b> [1] 13/13	78/5
<b>naked</b> [1] 80/4	<b>needs</b> [2] 8/4	<b>nine</b> [8] 15/14
<b>name</b> [17] 31/17	21/11	81/25 84/25 85/2
34/7 36/21 36/23	<b>Netflix</b> [3] 144/24	85/24 184/15
46/4 64/17 132/15	144/25 145/1	184/15 210/3
161/11 194/15	<b>network</b> [6] 143/4	<b>ninth</b> [1] 94/9
194/21 214/8 215/9	144/19 217/12	<b>ninth-grade</b> [1]
236/2 236/22 237/8	217/15 217/16	94/9
237/14 238/11	217/18	<b>no</b> [154] 1/2 2/10
<b>named</b> [8] 27/8	<b>never</b> [14] 97/14	5/5 5/5 5/14 6/17
30/16 89/8 100/3	97/18 97/21 119/15	7/13 7/15 9/21
140/4 140/18 189/4	120/14 120/18	9/25 10/2 11/13
202/10	148/13 176/8	15/5 18/15 19/20
<b>names</b> [3] 130/19	177/24 178/2	21/15 24/7 26/1
130/23 192/21	197/23 198/11	26/22 29/6 30/2
<b>naming</b> [1] 153/18	201/19 202/14	32/9 32/21 38/20
<b>native</b> [2] 77/25	<b>new</b> [2] 49/5 173/2	43/5 47/10 50/12
81/14	<b>next</b> [49] 18/7	50/22 51/1 55/20
<b>nature</b> [3] 159/11	19/11 20/13 20/24	60/14 66/5 67/10
159/18 179/6	21/25 24/11 25/5	67/22 69/18 71/5
<b>nearly</b> [1] 70/1	26/25 27/9 28/9	71/17 71/19 75/1
<b>necessarily</b> [9]	39/9 41/12 41/18	78/23 86/3 86/6
79/14 109/4 135/12	43/9 44/23 49/10	87/2 87/21 88/23
138/4 140/25 159/8	49/23 54/2 55/12	91/2 92/10 92/11
181/21 182/4	56/22 63/9 65/16	92/23 97/16 98/21
212/22	66/6 66/13 75/6	101/10 101/12
<b>necessary</b> [3]	76/7 77/20 77/20	104/3 104/15

<b>N</b>	235/7 235/24	172/14 172/20
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 108 of 254	236/15 238/12	192/10 193/20
no... [99] 106/23	241/12 242/8	194/9 194/16 229/9
107/5 107/7 112/11	242/12 242/15	229/9 229/16 230/3
113/11 114/22	243/16	244/9 244/15
115/14 116/1 119/7	<b>non [2]</b> 19/21	<b>now [77]</b> 3/18 5/5
119/17 120/6	105/5	6/24 7/9 16/11
123/17 128/24	<b>non-authenticity</b>	19/21 20/8 23/10
129/16 132/25	<b>[1]</b> 105/5	29/3 39/17 44/17
133/16 133/17	<b>non-trading [1]</b>	51/2 52/1 52/11
134/22 135/17	19/21	66/17 70/9 72/18
136/15 136/23	<b>normal [3]</b> 28/18	82/8 96/14 97/14
136/24 137/15	96/15 241/11	100/7 100/13
139/18 139/20	<b>normally [1]</b>	101/13 102/22
140/24 141/4 141/4	180/15	105/10 107/16
142/19 143/25	<b>North [2]</b> 1/24	108/19 109/8 112/5
150/12 150/16	244/18	119/24 120/20
150/21 150/23	<b>Northumbria [2]</b>	123/7 125/19 126/2
150/23 151/16	190/6 191/1	127/13 130/10
152/10 152/10	<b>not [300]</b>	131/9 132/2 135/9
153/11 153/11	<b>notably [1]</b> 86/3	140/7 142/21 143/3
153/16 154/18	<b>note [1]</b> 236/1	143/20 145/7
159/1 159/4 159/8	<b>noted [4]</b> 9/16	145/13 146/14
162/21 164/16	11/22 32/22 45/20	147/4 147/16 150/1
164/19 165/14	<b>notes [2]</b> 146/18	155/3 162/11 163/1
166/23 170/7 170/9	244/11	163/8 163/17 167/4
171/18 172/2 172/4	<b>noteworthy [2]</b>	171/14 174/15
178/1 181/25	76/10 77/15	175/15 180/15
183/12 186/13	<b>nothing [6]</b> 4/5	181/16 183/16
191/12 192/3	12/5 26/3 46/9	187/19 189/25
197/17 198/13	130/14 132/14	190/5 190/9 195/17
198/17 199/2	<b>notice [18]</b> 3/9	195/19 196/16
201/20 201/21	8/5 8/8 8/11 8/14	196/21 197/13
201/23 202/17	8/18 8/23 9/4 9/9	199/3 199/18
202/18 202/18	9/15 9/23 9/25	213/17 215/20
203/13 203/15	11/7 11/11 12/1	226/20 229/6
204/15 208/9	89/21 126/12	240/18
211/24 212/13	141/17	<b>number [127]</b> 7/1
212/14 212/14	<b>noticed [2]</b> 145/14	7/2 7/2 15/13
212/22 213/3 213/5	145/17	16/21 18/3 19/6
217/20 218/2	<b>notices [1]</b> 91/12	20/11 22/6 25/18
225/18 228/14	<b>novel [1]</b> 231/4	27/22 30/5 37/17
233/15 234/10	<b>November [16]</b> 1/5	39/19 41/7 42/8
234/16 234/16	29/10 30/9 30/10	42/9 44/8 44/18

<b>N</b>	210/6 210/6 211/3	100/4 101/15
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 105 of 254	219/14 219/16	101/20 114/6
<b>number...</b> [108]	219/16 222/15	114/10 114/20
46/15 48/1 48/11	230/16	128/2 135/20 136/6
48/16 49/13 49/20	<b>number one</b> [1]	136/13 145/25
49/21 50/3 50/4	19/6	147/25 149/10
50/18 54/12 55/23	<b>numbers</b> [9] 40/21	149/12 149/17
56/8 59/18 75/21	40/23 40/25 59/15	152/11 153/9 155/9
76/25 77/13 77/14	79/22 79/25 132/9	155/10 156/24
78/1 80/8 80/25	182/16 187/20	157/9 158/2 158/19
81/3 81/25 84/23	<b>numerous</b> [1]	162/6 162/6 164/2
84/24 84/25 85/2	165/18	165/19 166/1 166/2
85/9 85/23 85/23	<b>O</b>	166/9 168/14
87/23 88/16 89/12	<b>oath</b> [2] 14/23	168/20 169/6 170/5
89/25 90/6 91/6	214/4	171/17 171/18
91/15 100/18	<b>oaths</b> [1] 105/19	175/8 178/7 180/6
107/13 107/23	<b>object</b> [14] 6/5	181/2 184/12
108/2 108/3 108/14	8/9 10/4 32/12	185/15 188/2
111/19 111/20	38/5 38/9 40/5	189/17 190/11
112/7 112/10	47/7 59/1 60/1	191/13 193/4
112/13 112/21	60/10 61/1 83/21	193/14 194/12
117/15 123/8 124/3	131/18	195/24 197/25
124/4 132/6 132/8	<b>objected</b> [2] 7/8	198/1 204/7 204/11
132/15 138/7 139/7	52/16	205/10 206/21
139/25 145/17	<b>objection</b> [142]	206/22 207/5
145/21 146/20	5/15 8/6 11/13	207/14 208/18
146/21 152/17	16/22 16/22 16/24	210/9 210/20
154/3 154/18	18/15 24/7 26/22	210/24 211/4 211/8
155/20 155/23	32/9 32/21 32/22	211/16 211/23
155/24 156/14	33/13 34/4 34/16	212/12 212/13
158/6 162/22	35/13 36/8 36/14	212/14 212/14
163/17 163/18	38/20 43/5 45/14	217/21 217/23
164/17 164/21	45/20 47/10 48/4	218/6 218/14
165/8 167/17	50/10 50/10 50/11	218/24 218/25
175/19 177/10	50/13 50/25 50/25	219/12 221/11
186/20 187/18	52/18 54/13 54/15	221/17 223/8 224/4
188/17 195/11	54/21 57/5 57/6	225/18 227/14
195/13 196/15	58/15 60/14 62/18	227/20 228/3
199/6 199/7 204/25	63/22 75/1 77/9	229/17 236/13
205/1 205/4 205/9	78/6 78/8 78/23	<b>objection's</b> [1]
208/1 208/10	80/13 82/20 82/23	8/22
208/11 208/13	83/25 88/23 90/21	<b>objects</b> [3] 26/12
208/13 208/16	99/4 99/9 99/13	48/13 74/23
209/20 209/25		<b>observe</b> [2] 94/12

<b>O</b>	<b>October 24th [1]</b>	87/22 88/7 89/11
<b>observe...</b> [1]	<b>October 31st [1]</b>	95/18 95/23 96/14
226/11	23/7	96/25 97/14 98/3
<b>observed [3]</b>	<b>odd [1]</b> 179/5	105/19 107/24
103/21 109/19	<b>off [9]</b> 15/12	109/23 111/14
191/8	19/21 68/20 72/6	113/2 114/2 114/17
<b>observing [1]</b>	130/8 139/4 170/3	115/12 117/3 121/8
67/21	176/23 222/25	121/15 122/7
<b>obtain [2]</b> 238/21	<b>offer [1]</b> 29/16	124/22 125/5 126/6
238/25	<b>offered [7]</b> 2/10	130/14 130/22
<b>obvious [5]</b> 80/19	32/14 32/20 36/9	130/25 132/19
133/21 133/24	36/10 82/18 223/10	133/15 133/18
134/7 135/13	<b>offering [3]</b> 4/23	134/9 134/19 135/1
<b>obviously [7]</b> 4/7	32/16 107/2	137/24 138/2 138/9
14/11 94/2 107/13	<b>office [4]</b> 65/7	138/12 140/9 142/5
157/22 179/11	65/10 65/13 175/3	142/21 144/1
185/19	<b>officer [1]</b> 212/5	144/17 146/18
<b>occasion [1]</b>	<b>official [2]</b> 9/20	146/22 147/4 148/9
165/24	192/23	153/25 155/3 156/9
<b>occur [3]</b> 130/9	<b>often [3]</b> 117/4	156/11 160/5
142/8 142/12	132/14 239/1	160/20 161/13
<b>occurred [5]</b> 39/23	<b>oh [10]</b> 40/1 44/22	161/13 162/3
53/5 175/24 176/9	57/13 58/18 63/1	164/25 165/7
209/16	66/14 88/12 117/6	165/16 171/25
<b>occurring [1]</b>	117/14 150/1	172/22 173/9
229/24	<b>okay [163]</b> 12/5	173/12 173/18
<b>October [20]</b> 22/19	14/15 15/3 15/4	173/23 176/5 178/2
23/7 26/1 58/2	15/4 16/21 17/14	178/25 179/15
58/13 61/23 64/14	18/2 20/5 20/22	181/8 182/15
65/15 75/11 79/18	25/17 27/3 28/17	183/15 183/22
81/10 84/11 86/19	30/19 31/8 31/14	187/5 187/9 187/18
87/9 87/20 88/4	37/4 38/13 40/12	190/25 191/11
88/6 89/6 153/15	41/18 43/11 44/10	192/23 194/23
226/5	44/17 46/6 46/15	195/3 195/13
<b>October 17th [4]</b>	48/9 48/15 53/25	196/21 197/13
58/2 64/14 65/15	54/17 54/25 55/23	198/8 198/24 199/3
75/11	56/2 56/24 57/21	199/18 201/8
<b>October 1st [1]</b>	57/25 58/4 59/21	201/15 206/4 206/8
153/15	61/8 63/1 63/11	208/3 208/15
<b>October 2014 [1]</b>	64/15 64/23 75/21	209/13 209/19
88/6	76/6 77/3 78/2	210/6 211/14 212/9
<b>October 23rd [3]</b>	79/21 80/7 80/11	220/12 221/18
87/9 87/20 88/4	82/7 83/15 83/22	225/9 226/18



<b>O</b>	147/16 154/18	230/9
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 111 of 254	154/20 156/3	<b>opened [1]</b> 123/12
<b>okay...</b> [6] 236/16	162/11 162/17	<b>opens [1]</b> 123/22
237/2 237/10	163/2 171/6 171/10	<b>operating [3]</b>
242/13 243/6	171/11 174/1 174/4	215/23 232/8
243/17	174/9 174/11	238/17
<b>old [4]</b> 12/16	177/10 178/10	<b>operation [1]</b>
13/23 46/10 141/15	178/10 179/7	99/11
<b>once [5]</b> 19/22	179/16 184/7 186/5	<b>operational [1]</b>
37/11 73/2 96/1	188/13 188/19	229/25
105/13	191/4 192/17	<b>operations [2]</b>
<b>one [144]</b> 3/8 6/4	195/19 196/6 197/8	87/17 216/2
6/17 7/1 12/9	198/3 198/10 199/4	<b>opine [7]</b> 36/3
13/14 13/19 15/14	199/6 199/7 199/13	45/9 105/7 111/4
15/18 16/18 17/12	202/18 203/15	146/5 175/24 205/8
17/12 17/20 19/6	204/13 204/18	<b>opined [18]</b> 15/17
20/20 22/3 22/25	204/25 205/4	107/25 108/3
24/20 25/7 26/2	208/23 209/10	145/13 145/16
26/4 27/23 35/10	211/3 212/9 217/7	146/3 147/5 152/14
36/10 38/1 38/2	218/17 221/24	176/10 186/14
39/19 55/16 60/6	223/1 224/11 228/7	186/21 187/22
63/25 70/20 72/6	228/21 237/13	188/9 188/13
80/19 81/10 92/17	237/13 237/17	188/19 189/25
94/22 97/3 98/6	237/25 238/2 238/4	196/9 203/24
100/19 102/8 102/8	238/6 238/8 239/2	<b>opining [3]</b> 106/17
107/10 107/10	240/10 241/4	108/11 183/22
107/12 107/15	242/14 243/6	<b>opinion [44]</b> 4/24
108/11 109/22	<b>ones [4]</b> 34/22	8/2 21/13 23/16
109/24 110/21	110/11 162/16	25/14 29/25 30/4
113/13 116/2	188/13	30/6 37/15 41/6
117/15 117/24	<b>online [1]</b> 228/18	46/12 55/8 55/20
118/25 120/12	<b>only [22]</b> 26/2	55/22 58/19 62/8
123/5 123/15	26/4 45/15 50/20	62/10 65/11 81/24
125/17 125/22	52/25 53/13 70/11	87/18 92/22 104/15
126/20 127/24	99/16 123/18	104/18 104/21
130/10 133/23	124/15 140/24	104/24 106/13
134/1 134/7 135/22	141/18 154/9	106/20 106/21
141/19 142/14	154/10 154/25	106/24 107/2
142/25 143/8	160/21 179/23	107/16 107/20
143/22 144/2	179/25 196/6	108/19 108/24
145/16 145/17	220/25 231/25	111/3 112/3 136/10
145/21 146/4	236/8	152/15 156/8
146/19 146/25	<b>open [5]</b> 23/17	156/20 157/23
147/2 147/11	40/14 49/4 144/24	178/6 214/23 215/2

<b>O</b>	85/24 86/9 91/5	70/7 70/22 73/1
USCA11 Case: 22-11150 Document: 33-13 Date Filed: 11/30/2022 Page: 112 of 254	91/22 91/25 96/9	102/8 102/11
<b>opinions</b> [4]	53/10 92/19 189/22	102/17 102/19
<b>opponent</b> [1]	102/14 102/20	103/5 112/15
131/17	106/4 106/7 106/10	112/18 113/9
<b>opportunity</b> [7]	107/7 108/10	113/17 114/18
21/10 164/6 212/1	108/25 111/8	117/17 118/7
240/21 240/24	113/14 120/1 120/8	120/13 134/20
241/8 241/9	120/13 121/4	141/5 145/20 155/6
<b>opposed</b> [7]	125/17 139/4	156/22 178/25
28/20	139/22 142/17	179/4 179/10
54/24 62/14 72/16	144/24 147/2	186/16 189/17
72/25 79/18 96/8	154/25 162/16	201/5 236/8 237/7
<b>opposite</b> [1]	162/16 162/18	240/13
13/18	162/22 162/23	<b>outlays</b> [1]
<b>order</b> [7]	166/21 169/4	217/7
3/1 8/24	169/18 173/14	<b>outlet</b> [3]
31/8 51/9 51/20	173/21 174/23	96/23
69/13 239/2	176/2 176/3 176/3	97/1 97/11
<b>organization</b> [7]	177/14 179/14	<b>outline</b> [1]
100/13 100/16	179/16 180/12	226/6
100/24 113/20	183/19 185/20	<b>Outlook</b> [6]
192/19 192/21	186/2 192/6 193/13	59/9
192/23	194/11 196/18	65/18 65/22 65/23
<b>organizations</b> [1]	202/19 203/16	65/24 65/25
100/18	211/22 218/19	<b>outside</b> [23]
<b>original</b> [4]	225/7 231/19	66/24
227/3	238/10 238/18	67/1 73/4 99/13
231/24 232/8	241/1 242/10	100/4 121/3 122/11
232/24	<b>others</b> [11]	135/20 136/6
<b>originally</b> [4]	21/8	136/13 145/4
110/14 174/15	26/1 29/21 67/17	149/17 178/7 180/6
174/24 232/11	70/12 80/12 107/17	185/11 186/15
<b>originated</b> [2]	124/21 221/25	188/2 189/16
34/12 44/3	233/10 233/17	197/25 217/21
<b>originating</b> [1]	<b>our</b> [13]	227/14 227/21
206/2	3/14 5/23	229/17
<b>other</b> [93]	9/3 10/21 16/3	<b>over</b> [23]
4/6	28/21 67/4 69/23	6/3 13/3
4/11 7/23 8/20	122/3 213/14	15/8 21/10 37/16
14/8 16/18 18/11	213/23 216/10	73/19 101/13 136/4
20/7 20/10 20/20	242/1	141/23 141/23
21/19 28/20 33/18	<b>out</b> [41]	141/23 155/7
33/23 35/12 44/17	5/7 8/10	202/11 202/11
52/10 57/10 69/15	10/21 11/5 16/6	202/12 213/22
70/12 71/22 72/18	23/17 37/16 46/7	226/8 231/12
73/13 73/18 77/15	50/9 67/23 67/25	231/17 232/12
80/7 84/20 85/17		232/16 237/6
		240/11
		<b>overarching</b> [1]



<p><b>O</b></p> <p>USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 113 of 254</p> <p><b>overarching...</b> [1] 51/13</p> <p><b>overnight</b> [1] 15/6</p> <p><b>overrule</b> [1] 228/2</p> <p><b>overruled</b> [28] 32/22 36/14 45/20 63/23 77/10 90/22 99/15 114/12 114/21 128/3 136/14 148/1 153/11 157/11 166/25 170/6 185/16 188/4 189/18 194/13 196/2 197/2 198/20 207/6 211/8 217/24 218/15 229/21</p> <p><b>overseeing</b> [1] 235/2</p> <p><b>overturning</b> [1] 51/9</p> <p><b>own</b> [2] 4/9 151/8</p> <p><b>owner</b> [3] 26/5 195/21 196/6</p> <p><b>Oxford</b> [1] 4/21</p>	<p>17/12 17/13 17/15 22/11 27/1 40/22</p> <p>126/21 146/25 151/12 151/24 187/14 187/19 197/20 220/10 220/10 227/20 237/1 240/19 241/6</p> <p><b>pages</b> [5] 1/8 147/1 187/7 241/5 244/12</p> <p><b>paid</b> [4] 101/23 102/1 102/22 123/19</p> <p><b>PALM</b> [1] 1/2</p> <p><b>Panama</b> [1] 37/11</p> <p><b>Panopticopt</b> [2] 186/22 189/4</p> <p><b>panopticopt.com</b> [8] 61/18 61/20 63/14 63/15 64/12 76/19 81/12 81/13</p> <p><b>paper</b> [4] 56/17 56/20 141/14 220/19</p> <p><b>papers</b> [1] 97/18</p> <p><b>paperwork</b> [1] 46/8</p> <p><b>paragraph</b> [8] 37/6 86/23 87/8 164/11 164/20 166/7 218/25 219/4</p> <p><b>paraphrasing</b> [1] 54/24</p> <p><b>Pardon</b> [2] 142/22 184/17</p> <p><b>part</b> [16] 8/2 8/6 23/5 29/11 54/19 96/5 108/21 110/25 151/3 182/11 194/21 196/18 216/7 216/17 227/18 242/15</p> <p><b>participants</b> [1] 217/16</p>	<p><b>participate</b> [1] 217/11</p> <p><b>particular</b> [25] 9/13 30/8 34/8 35/2 39/4 41/2 48/24 49/18 56/20 64/9 75/11 76/5 76/14 76/21 77/1 78/20 80/6 81/10 89/20 107/10 113/11 124/10 141/18 228/20 238/20</p> <p><b>parties</b> [4] 132/5 165/22 240/15 243/4</p> <p><b>partnership</b> [3] 93/6 104/6 214/24</p> <p><b>parts</b> [1] 142/7</p> <p><b>party</b> [6] 62/13 69/13 117/12 131/17 132/15 186/18</p> <p><b>pass</b> [1] 239/3</p> <p><b>passed</b> [1] 17/5</p> <p><b>password</b> [1] 34/2</p> <p><b>past</b> [1] 200/16</p> <p><b>Pause</b> [30] 15/24 17/19 25/8 59/4 67/3 72/3 74/16 83/7 87/5 92/16 116/4 135/24 143/1 147/13 163/3 171/7 191/5 191/15 199/14 204/14 204/19 205/18 205/20 208/5 219/17 223/3 224/13 225/20 226/19 228/9</p> <p><b>payments</b> [1] 87/16</p> <p><b>PC</b> [1] 64/19</p> <p><b>PCCSW01</b> [1] 64/10</p> <p><b>PDF</b> [32] 27/5 27/5</p>
<p><b>P</b></p> <p><b>P's</b> [1] 43/19</p> <p><b>p.m</b> [9] 121/14 121/17 121/17 125/8 184/22 184/25 184/25 239/17 243/21</p> <p><b>P2</b> [4] 169/22 169/24 170/4 170/10</p> <p><b>P35</b> [4] 57/2 81/8 209/20 209/24</p> <p><b>P36</b> [2] 209/14 209/17</p> <p><b>P478</b> [1] 236/9</p> <p><b>P613</b> [1] 34/2</p> <p><b>page</b> [21] 2/4 2/7</p>		

<b>P</b>	<b>permitted [3]</b> 5/4	37/11 214/4
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 164 of 254	7/4 211/10	<b>plain [1]</b> 6/22
<b>PDF ... [30]</b> 38/20	<b>persist [1]</b> 73/16	<b>PLAINTIFF [8]</b> 1/12
38/5 38/9 38/9	<b>person [12]</b> 31/3	2/2 2/4 82/19
38/10 40/5 40/12	31/8 31/19 99/20	149/24 191/11
40/14 40/17 41/6	130/2 135/5 179/6	196/5 243/9
41/14 41/16 42/8	179/6 179/7 179/7	<b>Plaintiffs [33]</b>
45/1 46/20 46/24	182/5 231/23	1/5 3/8 5/11 8/9
47/7 59/1 60/1	<b>personal [8]</b> 1/3	10/13 51/11 51/17
61/1 61/16 62/5	64/20 107/5 107/7	66/22 69/9 69/12
62/7 66/9 74/23	216/22 234/3	69/16 74/5 78/3
76/12 83/21 128/19	234/11 234/14	78/5 121/24 122/2
129/15 176/8	<b>personally [1]</b>	131/9 141/3 145/24
<b>PDFs [1]</b> 77/13	29/22	150/2 154/13
<b>peer [2]</b> 28/16	<b>persuade [1]</b> 51/18	163/15 185/3
28/16	<b>PGP [5]</b> 145/13	187/14 191/8 213/2
<b>pegged [1]</b> 11/1	146/3 175/18	213/14 213/16
<b>people [11]</b> 67/15	176/23 176/25	240/20 240/24
96/15 142/2 144/17	<b>Ph.D [2]</b> 93/15	241/5 241/9 243/15
174/23 185/20	117/22	<b>Plaintiffs' [154]</b>
186/3 211/22	<b>phenomenon [2]</b>	2/10 2/11 2/11
232/18 232/21	94/13 94/16	2/12 2/12 2/13
232/23	<b>philosophy [1]</b>	2/13 2/14 2/14
<b>per [1]</b> 215/13	96/9	2/15 2/15 2/16
<b>percent [5]</b> 21/5	<b>phone [3]</b> 28/21	2/16 2/17 2/17
107/15 139/1 139/5	44/8 203/9	2/18 2/18 2/19
139/8	<b>phony [1]</b> 7/19	2/19 2/20 2/20
<b>percentage [2]</b>	<b>phrase [1]</b> 109/17	2/21 2/21 2/22
139/3 139/4	<b>physical [1]</b> 42/23	2/22 2/23 2/23
<b>Perfect [4]</b> 18/8	<b>pick [4]</b> 143/12	2/24 7/11 11/24
22/14 29/14 60/20	143/13 158/17	16/1 16/18 17/11
<b>performed [2]</b>	158/18	18/17 21/23 22/3
44/12 119/25	<b>picked [2]</b> 156/3	22/16 24/2 24/9
<b>perhaps [7]</b> 13/11	157/3	24/22 25/11 25/14
96/11 117/20	<b>picks [1]</b> 13/20	25/17 25/19 26/11
138/24 139/12	<b>picture [1]</b> 23/8	26/24 28/12 29/25
144/1 219/2	<b>pieces [2]</b> 107/13	31/22 31/24 32/4
<b>period [3]</b> 68/22	141/14	32/24 33/3 35/18
203/19 203/23	<b>Pirate [1]</b> 99/23	35/20 36/6 36/16
<b>perjury [1]</b> 51/15	<b>place [6]</b> 15/1	36/19 38/22 43/7
<b>permission [2]</b>	121/11 142/23	44/25 45/12 45/22
53/1 241/5	143/12 170/19	46/2 46/12 46/23
<b>permit [4]</b> 4/17	239/4	47/12 54/3 55/2
53/5 229/21 239/12	<b>placed [3]</b> 14/23	55/4 55/15 55/19

<b>P</b>	<b>played [1]</b> 207/8	<b>pop [2]</b> 29/4 89/17
<b>Plaintiffs ... [82]</b>	<b>pleasant [3]</b> 29/24	<b>pop-up [1]</b> 29/24
56/12 56/25 58/14	121/15 125/11	<b>pops [1]</b> 5/6
60/16 69/22 70/15	239/15	<b>pornography [2]</b>
75/3 77/14 77/24	<b>please [51]</b> 14/19	98/25 99/3
78/25 81/21 82/1	16/16 18/19 19/12	<b>portion [3]</b> 54/24
83/4 84/2 86/13	20/25 22/1 27/10	76/22 76/25
87/22 88/25 91/15	36/17 38/1 39/10	<b>portions [5]</b> 40/7
106/1 111/15	41/19 42/15 43/9	40/9 40/9 40/18
111/24 113/6 114/8	45/23 47/15 47/22	49/18
114/14 122/18	49/24 55/13 57/8	<b>pose [1]</b> 169/11
132/20 132/23	57/15 65/16 66/7	<b>posed [1]</b> 126/23
133/23 134/3 134/7	66/14 72/7 72/10	<b>posing [1]</b> 96/16
145/13 145/17	74/12 76/8 80/15	<b>position [1]</b> 52/14
146/5 146/9 147/5	80/22 84/4 85/6	<b>positioning [1]</b>
147/7 151/4 154/22	85/20 86/13 88/10	14/25
155/7 155/24 156/2	119/5 125/10	<b>positions [1]</b>
157/14 157/18	151/22 155/3	102/20
158/18 160/24	156/10 185/8	<b>possess [2]</b> 147/21
161/4 162/4 163/5	188/25 207/7	147/23
163/11 164/7 164/9	209/14 209/20	<b>possession [4]</b>
164/18 165/3 165/4	212/6 213/12 214/8	32/2 32/17 36/11
166/8 166/12	215/14 226/6 227/5	45/18
166/15 167/15	239/11	<b>possibilities [1]</b>
167/17 168/6	<b>pleasure [1]</b> 3/13	171/4
168/17 169/1	<b>plug [3]</b> 96/17	<b>possible [11]</b>
169/16 186/24	97/2 97/6	90/24 90/25 111/8
187/15 188/1 188/6	<b>plus [4]</b> 107/17	131/5 135/8 139/19
188/17 191/7	107/20 154/5	143/10 143/23
191/12 191/17	184/15	144/3 145/5 145/6
193/20 193/24	<b>point [27]</b> 6/4 6/5	<b>possibly [6]</b> 61/9
194/1 194/24 195/6	7/6 10/17 11/7	118/1 145/2 167/12
195/10 196/12	14/12 24/5 51/20	179/3 206/24
210/12 210/21	59/17 118/9 123/11	<b>post [5]</b> 65/6 65/9
213/12 242/6	125/1 142/8 142/14	65/12 69/14 228/18
<b>planet [2]</b> 128/6	148/16 160/21	<b>posted [5]</b> 67/8
128/7	164/8 197/8 213/13	71/7 71/14 227/2
<b>planning [1]</b> 5/18	217/23 218/15	228/22
<b>plausible [1]</b>	219/15 228/23	<b>posting [2]</b> 67/19
103/14	235/3 239/7 241/14	228/23
<b>play [4]</b> 13/11	241/22	<b>posture [1]</b> 123/13
206/16 206/18	<b>pointed [1]</b> 176/22	<b>potentially [1]</b>
207/7	<b>pointing [1]</b> 44/1	5/2
	<b>Ponce [1]</b> 1/21	<b>power [2]</b> 114/4

<b>P</b>	97/21 205/16	144/19 150/25
<b>power...</b> [1]	<b>presented</b> [4]	<b>privilege</b> [4]
114/14	53/11 53/22 70/13	52/16 68/15 155/11
<b>PowerPoint</b> [2]	119/22	158/2
18/6 59/10	<b>presenting</b> [1]	<b>Privileged</b> [2]
<b>practice</b> [4]	12/17	158/19 162/6
101/12 215/22	<b>preserved</b> [2]	<b>probably</b> [6] 13/9
216/7 216/8	122/22 240/22	66/16 98/5 103/9
<b>precise</b> [2] 120/21	<b>preserving</b> [1]	155/21 237/1
143/21	122/21	<b>problem</b> [9] 5/1
<b>precision</b> [7]	<b>press</b> [1] 70/7	7/3 13/17 13/18
115/4 117/15	<b>pretrial</b> [6] 53/5	16/8 69/19 164/23
118/21 119/2	53/8 53/11 124/11	220/19 242/8
119/20 132/3 206/5	124/14 124/24	<b>procedural</b> [7]
<b>predict</b> [2] 97/1	<b>pretty</b> [1] 146/14	50/11 51/1 52/2
127/6	<b>previous</b> [8] 5/20	52/4 52/8 52/11
<b>prediction</b> [3]	50/8 64/24 78/5	123/13
97/3 127/4 127/11	80/20 105/12 234/6	<b>proceed</b> [4] 121/22
<b>predictions</b> [1]	234/8	121/24 122/14
94/24	<b>previously</b> [9]	213/17
<b>predominately</b> [1]	14/22 36/3 36/12	<b>proceeding</b> [6]
39/20	45/9 50/17 77/19	68/2 105/9 105/9
<b>prefers</b> [1] 120/23	86/13 124/4 213/19	105/20 124/12
<b>prejudice</b> [3]	<b>primarily</b> [1]	240/5
69/16 69/17 70/15	235/3	<b>proceedings</b> [36]
<b>prejudiced</b> [2]	<b>primary</b> [1] 232/1	15/24 16/5 17/19
69/10 69/12	<b>primes</b> [1] 9/17	25/8 59/4 67/3
<b>prejudices</b> [3]	<b>principles</b> [1]	70/8 72/3 74/16
7/11 69/22 69/23	199/21	83/7 87/5 92/16
<b>preparation</b> [1]	<b>print</b> [3] 144/12	116/4 124/25
123/10	173/1 173/9	135/24 143/1
<b>prepare</b> [1] 11/25	<b>printed</b> [4] 172/12	147/13 163/3 171/7
<b>presence</b> [1]	172/20 172/23	191/5 191/15
122/11	173/3	199/14 204/14
<b>present</b> [7] 66/20	<b>printing</b> [1] 173/6	204/19 205/18
121/14 123/3	<b>printout</b> [2] 29/9	205/20 208/5
184/22 213/20	59/8	219/17 223/3
239/17 244/7	<b>prior</b> [4] 97/24	224/13 225/20
<b>presentation</b> [7]	137/3 180/25	226/19 228/9
7/11 15/22 23/23	181/14	243/18 243/21
24/11 26/8 27/1	<b>private</b> [15] 31/11	244/8
239/24	31/12 31/18 33/5	<b>process</b> [7] 11/5
<b>presentations</b> [2]	33/17 34/8 34/24	29/17 30/24 155/8
	35/1 73/7 143/4	

<b>P</b>	233/8 233/10	215/2 217/17 243/1
<b>process...</b> [3]	233/16 235/3	<b>provided</b> [6] 53/3
220/20 231/3	235/17 235/17	98/11 103/4 175/6
232/15	238/18	242/6 243/3
<b>processed</b> [1]	<b>progresses</b> [1]	<b>provider</b> [6] 28/21
64/14	103/20	137/14 137/17
<b>processor</b> [1]	<b>progressively</b> [1]	137/18 137/24
134/24	46/17	138/2
<b>produced</b> [38]	<b>prohibited</b> [1]	<b>providers</b> [3]
15/17 21/19 29/6	98/25	137/12 138/14
31/25 32/15 34/13	<b>projected</b> [4]	138/17
35/22 45/3 56/13	143/14 144/2	<b>provides</b> [3]
56/14 56/17 56/19	144/12 144/14	115/14 137/20
78/2 78/4 81/5	<b>projecting</b> [1]	138/10
91/23 91/25 127/7	143/21	<b>providing</b> [2]
131/9 132/5 132/19	<b>promise</b> [1] 7/6	157/22 223/12
152/19 154/10	<b>pronounce</b> [1]	<b>public</b> [11] 23/12
154/11 154/16	101/5	73/7 138/7 180/16
154/19 155/5 162/2	<b>proof</b> [1] 110/4	197/11 220/3
162/21 163/21	<b>proper</b> [7] 8/10	223/18 224/6 226/2
163/23 164/1	9/1 9/24 131/19	240/4 240/5
175/12 177/12	153/11 212/18	<b>publication</b> [1]
177/16 177/17	223/9	146/10
177/18 178/23	<b>properly</b> [1]	<b>publications</b> [1]
<b>productive</b> [1]	231/14	234/3
151/21	<b>properties</b> [3]	<b>publicly</b> [7] 30/10
<b>professional</b> [1]	88/19 89/19 91/11	65/24 73/16 226/24
216/23	<b>property</b> [3] 10/11	228/18 229/23
<b>proficient</b> [3]	10/23 137/16	230/11
135/2 135/6 135/19	<b>proprietary</b> [1]	<b>publish</b> [8] 16/16
<b>profile</b> [1] 23/8	138/7	18/19 33/1 45/23
<b>program</b> [8] 30/11	<b>prosecution</b> [2]	57/14 75/5 168/13
31/3 65/22 217/10	99/25 100/1	220/7
231/16 233/19	<b>protect</b> [1] 37/12	<b>published</b> [4]
234/18 235/19	<b>protected</b> [2]	57/14 97/18 165/17
<b>programmers</b> [1]	33/21 33/25	165/23
232/16	<b>protocol</b> [1] 143/4	<b>pull</b> [17] 42/15
<b>programming</b> [7]	<b>prove</b> [2] 129/19	42/24 56/21 57/13
214/18 218/18	204/24	112/18 141/5
230/25 231/10	<b>proved</b> [1] 180/4	161/10 164/9
231/11 231/13	<b>provide</b> [11] 52/21	187/13 188/16
233/18	61/15 113/23	201/5 208/3 209/14
<b>programs</b> [8] 217/1	118/24 120/6 212/6	210/12 220/5
	214/13 214/23	220/24 236/7

<b>P</b>	<b>Q</b>	71/15 123/21 166/8
<b>pulled [1]</b> 208/6	<b>Queensland [5]</b>	<b>quote/unquote [2]</b>
<b>pullouts [1]</b>	114/25 115/9	67/9 71/15
141/12	115/17 140/2 141/5	<b>R</b>
<b>purchase [1]</b> 58/9	<b>question [55]</b> 6/14	<b>rain [1]</b> 109/21
<b>purchased [1]</b> 88/5	8/12 8/18 9/9	<b>rains [1]</b> 109/19
<b>purport [1]</b> 17/2	10/16 10/17 68/13	<b>raise [4]</b> 51/17
<b>purported [11]</b>	68/18 92/17 105/3	66/23 212/2 214/3
22/18 28/22 29/8	110/13 110/25	<b>raised [3]</b> 6/23
49/19 75/12 76/13	117/4 121/1 122/16	6/23 70/23
80/25 82/1 107/3	124/15 126/24	<b>ran [2]</b> 155/5
135/9 178/12	128/17 129/5 129/6	155/5
<b>purportedly [18]</b>	129/15 129/17	<b>rate [3]</b> 8/19
8/11 19/8 19/24	129/19 136/18	11/15 231/7
21/3 27/25 33/5	136/19 144/7 144/7	<b>rates [4]</b> 9/12
34/23 37/8 55/24	150/5 151/7 152/1	9/16 11/11 11/19
61/2 66/1 76/16	152/6 156/5 156/24	<b>rather [1]</b> 24/16
76/18 82/6 90/12	157/6 158/9 166/3	<b>rcbjr.org [1]</b>
91/1 178/14 195/20	180/3 196/4 198/7	191/25
<b>purports [12]</b> 17/3	198/24 200/8 207/3	<b>rcjbr.org [4]</b>
20/20 25/12 28/13	212/3 212/4 212/6	191/22 193/10
30/8 36/20 45/1	212/9 212/17	194/6 194/9
55/25 77/25 81/6	212/17 212/19	<b>re [1]</b> 158/25
81/15 86/17	213/1 228/13	<b>re-reviewed [1]</b>
<b>purpose [6]</b> 10/4	228/14 229/13	158/25
53/24 117/17	236/16 242/14	<b>reached [4]</b> 174/21
123/17 168/13	<b>questionable [1]</b>	231/22 232/20
221/12	155/16	233/21
<b>purposes [6]</b> 10/6	<b>questioned [1]</b>	<b>reaching [1]</b>
11/20 11/23 73/14	211/21	136/21
110/7 122/21	<b>questioning [3]</b>	<b>read [17]</b> 25/25
<b>push [1]</b> 96/17	123/12 125/13	30/25 34/7 68/12
<b>put [21]</b> 6/10 11/3	184/19	71/6 71/6 82/7
14/8 46/21 59/19	<b>questions [12]</b>	86/23 117/8 129/2
69/22 70/15 73/2	92/11 92/23 110/21	129/3 134/17 196/5
80/17 83/6 116/7	123/8 204/15 205/1	203/9 210/19
120/13 132/16	211/24 212/1	212/19 220/15
133/2 147/14 154/2	212/23 213/3	<b>readable [4]</b> 31/17
161/15 167/15	220/13 241/4	79/19 116/23
187/14 222/25	<b>quiet [1]</b> 203/5	134/13
238/11	<b>Quite [2]</b> 61/9	<b>reads [5]</b> 19/18
<b>putting [1]</b> 134/20	179/3	29/16 29/22 212/10
	<b>quote [4]</b> 67/9	212/19



<b>R</b>	145/22 148/7 149/5	155/2 178/18
<b>ready</b> [9] 14/20	155/17 155/19	179/18 185/24
121/20 121/22	165/6 171/10	187/22 201/20
121/24 123/4	171/11 183/4 186/4	203/12 208/7
125/11 185/1	187/2 192/2 197/2	<b>record</b> [12] 51/2
206/18 239/9	199/4 200/21	51/8 68/6 122/23
<b>real</b> [11] 23/2	202/16 208/1 209/2	149/22 150/24
77/8 118/11 121/5	222/22 224/21	152/1 211/17 212/8
179/1 179/11	237/13	214/9 242/15
188/19 189/21	<b>receive</b> [3] 31/9	242/22
195/17 196/24	215/7 240/19	<b>records</b> [3] 113/24
233/19	<b>received</b> [24]	124/24 189/11
<b>real-life</b> [2]	10/24 18/17 24/9	<b>red</b> [7] 40/9 40/10
121/5 189/21	26/24 29/1 30/8	40/25 49/15 79/21
<b>really</b> [11] 7/3	32/24 36/16 38/22	113/5 141/12
11/7 134/11 142/15	43/7 45/22 47/12	<b>redirect</b> [7] 2/6
144/10 146/22	60/16 64/14 75/3	123/1 124/13
179/11 193/9	78/25 84/2 88/25	204/17 204/20
218/23 232/19	102/25 103/2	206/23 210/25
233/7	171/20 185/22	<b>refer</b> [13] 16/21
<b>realm</b> [1] 171/4	188/6 215/16	22/6 25/17 30/5
<b>reason</b> [15] 125/4	<b>receives</b> [1] 55/24	37/17 46/15 53/3
128/24 130/18	<b>recess</b> [8] 66/19	54/23 55/23 81/25
139/15 139/18	66/21 68/5 121/13	87/22 198/20
139/20 142/20	121/17 184/21	231/18
156/19 157/25	184/23 184/25	<b>reference</b> [14]
158/3 159/5 161/13	<b>recipient</b> [2]	53/10 53/20 59/15
162/3 162/7 183/25	179/16 186/4	59/17 82/15 123/17
<b>reasonable</b> [3]	<b>recipients</b> [1]	124/10 124/24
9/10 9/11 92/20	185/13	164/20 166/4
<b>reasonably</b> [2]	<b>recognizable</b> [1]	187/10 199/9 243/7
10/18 10/19	79/15	243/9
<b>reasons</b> [1] 130/10	<b>recognize</b> [9] 54/6	<b>references</b> [1]
<b>rebuilt</b> [1] 209/1	80/4 201/14 201/15	88/4
<b>rebut</b> [1] 6/11	221/3 221/5 221/7	<b>referred</b> [4] 112/6
<b>rebuttal</b> [3] 70/13	221/20 221/22	161/5 165/4 177/15
218/9 227/16	<b>recollection</b> [23]	<b>referring</b> [6]
<b>recall</b> [33] 14/20	98/8 98/21 101/1	41/21 137/10 148/8
52/8 58/9 98/4	103/16 105/14	153/21 169/21
103/6 103/13	107/22 108/16	195/22
107/22 108/2	111/3 113/12	<b>reflect</b> [4] 126/9
108/18 118/1	132/25 142/19	127/1 127/7 128/11
118/25 133/9	152/16 153/20	<b>reflected</b> [2]
	154/23 154/24	144/13 186/16

<b>R</b>	238/15	128/2 135/20 136/6
<b>reflects</b> [3]	<b>related</b> [22]	136/13 145/25
128/20 131/10	77/14 80/24 97/14	147/25 149/10
191/21	97/18 97/21 98/11	149/17 153/9 166/9
<b>refrain</b> [1] 71/1	100/10 108/5 108/9	175/8 184/12
<b>refresh</b> [4] 146/7	108/24 124/17	185/15 195/24
187/22 195/8 208/7	132/11 136/5 149/2	<b>relevant</b> [11] 8/11
<b>regard</b> [19] 3/17	168/6 172/6 174/6	8/15 9/4 9/18 10/5
8/1 8/5 8/17 9/7	174/8 206/8 206/12	10/6 10/9 10/12
13/4 14/10 16/24	207/25	11/18 11/20 124/8
51/18 52/20 73/13	<b>relates</b> [3] 3/14	<b>reliable</b> [5] 43/1
99/8 100/7 124/9	79/25 206/5	62/9 65/11 139/9
124/14 126/2 219/2	<b>relating</b> [4] 15/13	223/21
240/23 242/10	80/8 86/10 123/9	<b>relied</b> [4] 208/12
<b>regarding</b> [10] 3/8	<b>relation</b> [5] 75/25	208/15 210/7
3/9 54/12 61/16	79/7 82/5 85/9	224/25
136/16 148/7	115/24	<b>relief</b> [1] 70/16
174/17 186/20	<b>relationship</b> [14]	<b>religion</b> [1] 96/9
197/6 213/1	18/21 20/17 24/13	<b>rely</b> [3] 62/10
<b>regardless</b> [3]	24/15 27/15 39/2	65/12 193/9
154/5 173/5 183/18	84/8 115/7 165/11	<b>relying</b> [5] 115/15
<b>region</b> [3] 63/5	205/25 207/1 207/2	140/24 142/15
140/25 142/16	207/3 210/2	225/6 225/8
<b>register</b> [1] 189/7	<b>relatively</b> [1]	<b>remain</b> [1] 214/3
<b>registered</b> [2]	123/17	<b>remainder</b> [1]
192/1 192/3	<b>Relativity</b> [3]	29/23
<b>registration</b> [4]	179/19 179/21	<b>remaining</b> [1] 86/5
186/21 189/4	179/22	<b>remains</b> [1] 173/4
189/11 189/14	<b>relayed</b> [3] 28/19	<b>remember</b> [25]
<b>registrations</b> [1]	28/21 64/8	87/25 103/11
193/7	<b>release</b> [8] 181/8	108/17 111/24
<b>registry</b> [2]	181/10 219/23	112/2 113/6 113/15
189/15 191/2	226/3 226/6 226/23	117/5 133/24 134/4
<b>regular</b> [1] 215/7	227/18 232/8	137/2 139/24 146/6
<b>regularly</b> [2]	<b>released</b> [10]	146/23 164/10
216/16 228/22	30/10 30/11 180/13	178/11 183/2
<b>rehashing</b> [1] 53/5	180/16 226/5 227/8	183/11 187/4 190/7
<b>Reinhart</b> [7] 3/20	229/23 230/19	195/7 195/11
4/10 4/12 4/13	231/22 232/11	200/20 205/1
6/23 123/11 125/1	<b>relevance</b> [26] 4/7	239/11
<b>Reinhart's</b> [2] 4/1	4/7 9/2 10/2 10/12	<b>remind</b> [8] 14/22
51/9	10/25 11/22 99/4	63/5 76/11 112/9
<b>relate</b> [2] 80/9	100/4 101/15	205/24 206/5
	101/20 114/11	207/24 210/2



<b>R</b>	112/25	<b>rested [1]</b> 213/16
<b>remotely [3]</b> 12/13	<b>representation [1]</b> 11/30/22	<b>restricted [1]</b> 11/30/22
12/16 12/17	218/14	144/21
<b>remove [1]</b> 7/10	<b>representative [1]</b>	<b>rests [1]</b> 2/2
<b>removed [1]</b> 77/1	1/3	<b>result [8]</b> 111/7
<b>repeat [2]</b> 69/3	<b>request [9]</b> 3/9	124/8 126/15
229/12	5/19 5/23 8/5 8/8	129/20 129/21
<b>rephrase [2]</b> 80/15	149/3 149/3 149/19	159/7 170/23
149/13	226/10	192/14
<b>replicate [1]</b>	<b>requested [3]</b>	<b>results [5]</b> 42/24
175/23	12/15 61/21 63/16	119/11 129/9
<b>replicated [1]</b>	<b>require [1]</b> 110/18	139/21 176/10
175/25	<b>required [2]</b>	<b>resume [9]</b> 234/2
<b>report [29]</b> 7/17	124/11 239/2	234/5 235/25 236/6
110/12 120/11	<b>requires [1]</b> 71/12	236/11 236/14
137/3 138/2 146/5	<b>research [4]</b> 1/4	236/19 237/1
146/15 153/9	37/9 102/22 239/13	237/11
153/14 153/18	<b>resources [1]</b>	<b>retained [2]</b>
153/20 153/25	67/14	148/15 150/20
171/16 171/22	<b>respect [11]</b> 8/8	<b>retyping [1]</b>
187/7 188/14	10/1 10/2 10/3	134/19
188/21 188/23	69/10 69/13 124/16	<b>review [28]</b> 18/2
217/22 218/8	136/23 226/3	18/6 32/4 44/17
218/11 219/3	226/25 234/25	55/3 57/10 83/3
227/15 227/19	<b>Respectfully [3]</b>	88/7 108/4 152/22
227/21 228/2	21/12 56/7 82/14	153/2 153/7 154/5
229/18 229/20	<b>respond [7]</b> 5/24	157/15 159/14
241/16	211/10 240/21	162/21 164/7 200/7
<b>reported [3]</b>	240/21 240/25	200/9 200/14
162/17 166/20	241/8 241/16	200/23 216/14
244/8	<b>responding [1]</b>	219/15 223/15
<b>reporter [3]</b> 1/23	147/16	231/21 233/23
129/2 244/5	<b>response [6]</b> 10/14	233/25 241/18
<b>reports [9]</b> 6/3	51/23 183/12	<b>reviewed [26]</b>
105/22 120/14	198/17 203/6	15/16 30/15 30/17
120/15 141/23	241/10	30/21 32/15 68/11
171/11 171/12	<b>responsible [3]</b>	71/2 89/11 103/3
174/13 236/14	15/18 111/5 243/11	103/5 107/8 157/14
<b>repositories [1]</b>	<b>rest [7]</b> 73/2	158/25 174/16
234/17	116/12 122/2 122/8	200/21 205/3
<b>represent [8]</b> 17/3	183/18 213/14	216/15 222/15
36/20 45/1 55/25	220/15	230/18 234/2
74/23 81/6 112/25	<b>restate [2]</b> 107/18	234/24 235/8
	135/4	235/22 235/25

<p><b>R</b></p> <p>USCA11 Case: 22-11150 Document: 5313 Date Filed: 11/30/22 Page: 122 of 254</p> <p><b>reviewed...</b> [2] 236/11 236/19</p> <p><b>reviewing</b> [3] 158/1 158/3 158/22</p> <p><b>revision</b> [2] 48/25 76/5</p> <p><b>revisions</b> [3] 48/21 85/15 85/17</p> <p><b>rewrote</b> [1] 15/6</p> <p><b>right</b> [367]</p> <p><b>right-click</b> [1] 64/2</p> <p><b>risk</b> [1] 51/14</p> <p><b>risk-benefit</b> [1] 51/14</p> <p><b>risky</b> [1] 56/6</p> <p><b>RIVERO</b> [26] 1/18 1/19 2/6 3/10 5/8 6/1 6/5 6/8 6/15 7/8 7/14 16/4 16/23 32/18 51/10 67/6 67/18 68/10 71/2 71/11 72/11 121/20 121/22 123/8 205/24 211/21</p> <p><b>RMR</b> [1] 244/17</p> <p><b>Road</b> [11] 98/9 98/12 98/14 98/14 98/18 98/21 98/22 98/25 99/11 99/17 99/20</p> <p><b>Roberts</b> [1] 99/23</p> <p><b>ROCHE</b> [9] 1/12 1/13 2/5 2/6 16/14 53/2 62/21 86/24 123/25</p> <p><b>role</b> [2] 82/8 216/6</p> <p><b>roll</b> [1] 13/2</p> <p><b>rolled</b> [2] 134/10 240/11</p>	<p><b>Room</b> [1] 1/24 99/21</p> <p><b>Ross</b> [1] 99/21</p> <p><b>Rough</b> [1] 17/5</p> <p><b>roughly</b> [1] 209/7</p> <p><b>round</b> [1] 160/18</p> <p><b>route</b> [1] 143/5</p> <p><b>routed</b> [1] 62/17</p> <p><b>RPR</b> [1] 244/17</p> <p><b>rule</b> [1] 241/13</p> <p><b>rules</b> [1] 241/6</p> <p><b>ruling</b> [1] 211/18</p> <p><b>run</b> [3] 51/14 69/25 159/6</p> <p><b>running</b> [3] 21/7 37/16 217/12</p> <p><b>runs</b> [1] 217/11</p> <p><b>rush</b> [1] 19/20</p> <p><b>S</b></p> <p><b>S-A-N-S</b> [1] 100/14</p> <p><b>S-Lock</b> [6] 234/18 234/21 234/25 235/2 235/6 235/13</p> <p><b>safest</b> [1] 13/9</p> <p><b>said</b> [37] 4/13 4/14 4/14 6/24 28/15 30/19 30/25 40/20 51/11 71/16 72/9 79/17 96/25 102/1 105/22 107/16 107/21 109/18 126/12 126/17 133/8 133/11 133/24 134/1 146/15 146/22 146/23 151/2 151/4 151/10 155/4 156/16 165/15 170/11 180/12 182/10 194/11</p> <p><b>salary</b> [1] 215/8</p> <p><b>sale</b> [1] 98/19</p> <p><b>same</b> [45] 16/22</p>	<p>19/5 23/10 27/22 44/18 47/19 48/13 48/18 48/22 49/2 49/5 49/8 54/22 57/4 58/14 71/24 75/18 75/20 84/24 85/14 85/15 86/2 106/10 106/14 126/21 162/18 166/19 169/3 176/10 179/6 179/6 182/15 182/16 182/16 194/10 210/4 210/5 211/12 218/6 218/24 219/12 224/4 228/12 233/13 242/19</p> <p><b>sanctions</b> [2] 51/10 51/12</p> <p><b>SANS</b> [2] 100/13 100/20</p> <p><b>Satoshi</b> [24] 215/3 219/24 220/1 220/3 221/6 221/14 221/25 222/3 222/12 222/16 222/18 222/22 223/15 223/20 223/23 223/24 224/7 224/22 227/2 228/11 228/18 228/20 228/22 228/23</p> <p><b>Satoshi's</b> [1] 220/20</p> <p><b>Saturday</b> [1] 133/5</p> <p><b>save</b> [7] 159/22 160/18 160/20 173/2 173/13 173/19 173/20</p> <p><b>saving</b> [1] 170/18</p> <p><b>Savings</b> [3] 39/22 39/24 127/10</p>
--	--	---

<b>S</b>	56/2 71/9 90/10	136/13 149/17
USCA11 Case: 22-11150 Document: 38-13 Date Filed: 11/30/22 Page: 123 of 284	132/8 133/4 134/19	157/23 178/7 180/6
<b>saw</b> [6] 31/5	151/8 152/1 152/2	188/2 189/16
115/12 133/19	172/5 172/6 172/9	189/17 197/25
139/24 163/18	172/12 172/20	206/25 210/21
191/12	188/14 189/3 189/7	217/22 227/15
<b>say</b> [62] 5/4 6/12	198/15 199/8 201/6	227/21 229/17
11/4 28/20 30/21	201/15 209/9	<b>screen</b> [8] 16/3
33/19 38/10 49/4	220/12 237/4 237/6	16/5 29/3 29/4
52/1 53/2 68/16	<b>scale</b> [2] 11/4	29/13 34/25 59/20
68/21 68/23 69/19	231/8	81/3
77/5 80/17 93/22	<b>scan</b> [3] 29/6	<b>screens</b> [1] 240/5
94/24 95/7 96/21	56/14 81/5	<b>screenshot</b> [2]
96/23 98/6 103/19	<b>scenario</b> [1] 130/8	28/13 35/2
105/23 107/9	<b>schedule</b> [3]	<b>scroll</b> [2] 60/3
107/12 107/15	202/11 239/24	165/10
107/16 108/21	241/21	<b>search</b> [3] 118/12
109/8 109/23	<b>scheduling</b> [2]	189/10 219/16
109/24 111/1	12/10 241/20	<b>searches</b> [1]
111/15 121/4 125/1	<b>scheme</b> [1] 29/18	179/18
127/13 128/10	<b>SCHILLER</b> [1] 1/15	<b>seat</b> [6] 3/3 67/2
128/19 128/23	<b>school</b> [5] 102/11	68/7 214/7 229/6
130/10 135/11	102/17 102/19	239/21
137/20 141/20	102/21 141/15	<b>seated</b> [4] 14/19
142/9 143/19 156/9	<b>schools</b> [1] 97/16	74/12 125/10 185/8
161/19 161/21	<b>science</b> [15] 93/10	<b>second</b> [15] 95/1
162/19 162/23	93/18 93/23 94/13	110/25 126/20
167/1 172/16 174/7	94/19 95/13 96/5	130/17 137/1
177/21 181/16	96/8 96/9 96/11	158/24 164/7
196/16 197/10	109/11 117/23	164/10 165/4 166/7
198/22 218/20	215/16 215/17	197/20 201/6
222/21 231/8	218/17	204/18 220/10
<b>saying</b> [19] 72/10	<b>scientific</b> [13]	220/16
72/23 108/12	94/2 94/4 94/9	<b>secret</b> [1] 29/18
114/19 129/13	94/11 95/4 95/18	<b>secure</b> [2] 238/19
129/14 141/19	96/21 109/16 127/5	238/19
142/9 148/24	128/22 129/7	<b>security</b> [4] 93/15
153/17 154/20	129/23 175/16	93/16 147/24 212/5
156/5 171/23	<b>scientist</b> [4]	<b>see</b> [92] 14/19
173/12 173/15	93/21 94/11 94/23	14/25 16/4 16/9
176/5 195/17	95/7	18/22 21/11 22/20
195/21 199/16	<b>scope</b> [21] 99/4	24/14 27/3 29/3
<b>says</b> [30] 4/23 6/1	99/14 100/4 104/5	31/14 31/16 35/20
29/1 33/21 46/6	135/20 136/6	36/23 44/1 47/18

<b>S</b>	132/23 147/4	21/4 21/4 153/21
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 124 of 234	177/24 200/6 241/14	158/12 172/9 190/3
see... [76]	47/20	
48/13 49/18 57/21	<b>segments</b> [1] 29/19	<b>serious</b> [1] 68/23
68/3 70/10 70/24	<b>seized</b> [2] 10/16	<b>server</b> [11] 62/14
71/21 82/12 82/15	175/5	62/17 64/8 64/13
84/6 86/1 89/16	<b>seizure</b> [1] 98/12	65/3 65/5 65/9
97/7 111/21 112/13	<b>select</b> [1] 135/14	112/22 174/1 174/4
112/17 115/9	<b>send</b> [8] 31/9	209/3
116/12 118/2	31/12 33/11 35/8	<b>servers</b> [2] 209/1
120/18 121/13	64/11 66/3 181/24	209/9
121/15 128/15	182/5	<b>service</b> [10]
129/22 132/7 133/4	<b>sender</b> [3] 28/25	118/10 118/21
139/25 141/7	179/16 186/4	118/23 119/2 119/3
142/11 144/2	<b>senders</b> [1] 185/13	137/18 137/24
144/13 144/15	<b>sending</b> [2] 65/6	138/2 138/14
145/20 145/21	131/10	138/17
146/3 148/13	<b>sends</b> [1] 55/24	<b>services</b> [1] 98/11
150/18 151/23	<b>sense</b> [3] 133/21	<b>set</b> [20] 12/14
151/23 151/24	157/22 242/23	12/24 13/7 19/18
153/22 163/8	<b>sensitive</b> [2] 3/11	21/4 126/3 126/4
163/13 167/17	66/23	126/6 126/25 127/5
167/20 176/10	<b>sent</b> [39] 16/12	144/8 145/7 145/10
178/6 180/1 185/21	19/9 19/24 19/25	156/21 156/22
187/5 187/9 187/17	20/4 24/25 28/1	157/8 177/6 230/22
187/19 189/5	28/3 30/12 31/15	233/20 244/14
191/21 196/8 199/8	31/16 41/15 42/1	<b>sets</b> [1] 233/15
199/12 203/8	43/15 43/16 43/21	<b>setting</b> [1] 37/10
206/11 208/2 208/7	61/19 63/13 63/15	<b>settings</b> [2] 33/10
220/12 225/23	63/18 64/8 64/9	64/3
226/13 226/16	64/17 65/21 66/1	<b>seven</b> [13] 46/15
226/20 235/22	66/10 76/18 130/25	48/11 49/13 49/21
236/22 236/24	131/2 133/12	50/4 50/18 75/25
237/4 239/8 239/15	181/16 181/20	124/4 124/5 124/18
239/18 240/6	181/21 182/2 182/4	185/24 205/17
<b>seeing</b> [5] 59/16	185/22 211/14	210/6
72/4 146/18 199/4	240/16 240/17	<b>several</b> [2] 26/1
203/4	<b>sentence</b> [2]	73/13
<b>seek</b> [2] 70/18	201/17 220/15	<b>Seychelles</b> [2]
70/25	<b>separate</b> [6] 45/1	19/18 26/3
<b>seeking</b> [1] 70/16	57/23 69/1 98/24	<b>Shah</b> [30] 111/16
<b>seems</b> [1] 103/13	119/10 233/15	112/8 112/14
<b>seen</b> [9] 72/6	<b>separately</b> [2]	112/18 116/8 132/8
73/13 107/8 132/21	81/14 137/8	133/2 141/2 161/10
	<b>September</b> [7] 17/4	161/15 163/4 163/6

<b>S</b>	112/9 115/5 123/16	33/4 39/3 39/4
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 425 of 254	121/14 131/25	39/19 40/4 41/24
<b>Shah...</b> [18]	141/1 146/8 147/7	42/19 43/16 43/18
163/10 164/9	160/24 161/2 163/1	44/3 46/3 53/4
165/10 166/13	163/4 166/12 167/7	60/1 60/10 61/2
167/14 169/22	167/10 167/24	61/17 61/19 63/13
182/19 183/6	169/22 171/9	63/15 63/16 63/17
187/13 188/16	182/19 182/24	64/9 64/11 64/17
197/19 201/5 220/5	183/5 186/23 187/5	65/21 65/23 75/18
220/9 220/24	188/11 191/18	76/16 76/18 78/17
222/13 236/7	191/24 192/9 194/1	85/13 88/19 89/18
236/25	194/23 195/13	89/19 96/2 116/22
<b>sham</b> [1] 7/19	196/12 199/3 200/4	116/23 116/23
<b>Shamir's</b> [1] 29/18	201/1 201/3 201/9	128/15 128/15
<b>shares</b> [1] 82/18	202/2 202/7 202/23	128/16 168/19
<b>sharing</b> [3] 29/18	206/23 210/21	169/2 173/6 206/1
30/22 242/8	220/25 234/13	<b>Shyaam</b> [1] 202/10
<b>she</b> [1] 185/25	236/8	<b>side</b> [22] 4/5 4/9
<b>shed</b> [1] 180/2	<b>showed</b> [10] 39/19	5/6 5/6 132/20
<b>shelf</b> [2] 19/19	58/9 85/3 113/13	154/10 154/22
58/9	141/11 145/20	155/1 157/18 161/6
<b>shorthand</b> [2]	175/19 181/1	161/9 167/15
244/5 244/8	184/10 188/8	167/15 179/16
<b>shortly</b> [4] 71/16	<b>showing</b> [9] 50/17	179/16 179/23
82/6 211/14 211/15	59/8 113/14 119/19	179/25 180/3
<b>should</b> [11] 8/20	146/25 181/9	182/12 182/12
8/25 26/4 33/21	181/20 183/6	187/14 187/14
66/17 67/7 71/11	187/19	<b>sidebar</b> [13] 51/6
89/25 177/21	<b>shown</b> [32] 32/10	51/8 54/1 136/1
188/23 226/14	34/22 35/2 39/14	149/19 149/22
<b>shouldn't</b> [1] 7/4	40/6 49/21 58/5	152/12 212/7 212/8
<b>show</b> [81] 17/10	59/19 59/21 61/4	212/15 219/13
25/6 25/11 25/12	61/21 72/2 79/17	227/25 228/1
26/8 27/3 28/13	84/10 84/11 86/1	<b>sides</b> [6] 10/19
32/16 33/3 36/10	86/5 92/7 115/1	152/18 153/4 153/7
41/23 42/6 42/21	115/3 119/11	164/14 179/17
44/2 45/17 46/2	119/19 146/15	<b>sign</b> [3] 34/14
51/12 51/20 52/11	161/4 184/7 188/23	84/19 84/20
53/7 58/8 59/11	194/25 195/6	<b>signatories</b> [1]
61/8 63/12 64/6	195/15 195/25	186/10
64/7 64/13 65/20	196/13 210/16	<b>signature</b> [53]
66/10 66/14 76/23	<b>shows</b> [52] 18/24	17/14 17/25 18/11
83/9 83/9 85/12	24/16 24/16 26/12	18/22 18/25 19/2
89/5 111/21 111/22	27/5 28/25 29/1	19/3 19/5 19/16

<b>S</b>	57/23 75/24 81/9	115/22 116/6
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 126 of 254	129/11 176/2 176/13	116/20 117/3 117/4
<b>signature...</b> [44]	216/24 216/25	117/22 118/2 119/4
20/3 20/10 20/15	224/25 227/2	119/9 119/14
20/18 20/19 20/19	236/19 243/7	119/15 119/18
20/20 21/17 23/18	<b>similarities</b> [1]	120/9 120/13
23/20 24/3 24/14	85/24	120/20 121/3
24/16 24/17 25/21	<b>simple</b> [2] 3/24	125/22 126/2
26/16 26/18 27/13	170/17	126/13 126/17
27/17 27/19 27/20	<b>simplest</b> [1]	127/19 128/10
27/25 37/20 37/21	235/17	128/21 129/5
38/14 38/16 39/3	<b>simply</b> [5] 69/18	129/12 129/17
39/4 83/3 83/18	116/21 129/19	130/10 130/22
84/7 84/9 84/10	240/12 242/7	133/4 133/12
84/16 84/20 84/22	<b>since</b> [10] 5/8	133/18 134/2 134/9
90/15 90/15 90/16	102/20 103/17	135/9 136/9 136/18
116/22 176/25	201/24 202/18	137/1 137/8 138/13
177/1 177/11	203/15 216/20	139/10 139/14
181/11	216/23 232/8 240/7	139/15 139/23
<b>signatures</b> [13]	<b>single</b> [17] 100/8	140/13 141/1 141/4
17/7 17/10 41/25	112/25 145/16	141/7 141/9 141/19
42/3 84/19 88/2	145/17 145/21	142/1 142/5 142/8
91/10 109/1 147/1	154/21 154/25	143/3 143/11
175/18 178/24	156/3 161/6 161/24	143/19 143/24
181/5 186/6	162/10 200/14	144/9 145/15
<b>signed</b> [2] 46/10	200/18 200/20	145/23 146/4
186/11	232/17 232/17	146/14 146/18
<b>significance</b> [6]	232/25	146/22 147/4
61/5 64/21 75/16	<b>sir</b> [215] 3/18	147/10 148/24
79/25 161/13 211/2	12/8 66/25 70/17	152/18 153/14
<b>significant</b> [10]	72/10 73/10 73/21	153/17 153/22
67/14 70/1 77/3	74/1 74/3 74/15	153/25 154/15
82/4 83/2 117/16	82/7 93/3 93/10	155/3 155/14
117/19 117/24	93/18 94/1 94/8	155/22 156/2
124/12 137/8	95/3 96/14 97/24	156/21 157/17
<b>significantly</b> [1]	98/3 100/7 101/18	158/22 159/9
139/12	101/23 102/11	159/16 159/21
<b>Silk</b> [11] 98/9	103/15 103/21	159/25 161/13
98/12 98/14 98/14	104/4 105/9 109/11	162/12 163/1 163/8
98/18 98/21 98/22	110/3 110/9 111/14	163/13 164/6 165/2
98/25 99/11 99/17	112/5 112/10	166/7 166/12
99/20	112/21 113/2 114/4	166/15 166/19
<b>similar</b> [16] 20/15	114/5 114/17	167/10 167/17
34/22 49/12 57/11	114/25 115/20	167/23 167/24



<b>S</b>	182/4	<b>slowly [1]</b> 43/11
USCA11 Case: 22-11150 Document 318 Date Filed: 11/30/22 Page: 122 of 254	<b>situations [1]</b>	<b>small [1]</b> 227/12
<b>sir...</b> [76] 168/5	144/23	<b>smaller [1]</b> 157/8
168/9 168/17	<b>six [28]</b> 37/17	<b>smart [1]</b> 4/15
168/25 169/10	41/7 42/8 42/9	<b>SMS [1]</b> 28/20
169/15 170/3 171/9	43/24 44/18 48/1	<b>sneeze [3]</b> 109/19
171/14 171/25	49/20 50/4 50/18	109/20 109/22
172/5 173/5 175/15	75/25 111/19	<b>so [258]</b>
177/15 177/22	111/20 112/7 124/3	<b>social [1]</b> 70/9
178/2 178/10	124/5 124/18	<b>software [31]</b>
178/25 179/4 180/1	153/22 185/23	30/24 35/1 35/4
181/16 182/10	205/1 205/17	66/3 82/11 87/16
183/2 183/11	208/10 208/11	134/25 143/4
183/15 184/6	208/13 208/13	180/10 180/11
184/15 185/19	208/16 209/8 210/6	180/13 180/15
187/9 187/17	<b>skill [3]</b> 136/12	180/20 217/9
187/18 189/3	233/15 233/20	221/14 223/25
189/13 189/21	<b>skill/abilities [1]</b>	227/8 230/21
190/5 190/9 190/14	136/12	230/22 231/4 231/5
190/25 191/7	<b>skills [5]</b> 136/15	231/21 231/23
191/17 191/21	136/21 136/23	231/24 232/10
191/24 192/3	231/23 233/22	232/13 232/14
192/12 192/14	<b>Slack [14]</b> 67/8	232/20 234/18
193/7 193/10	67/19 68/8 68/11	238/17 238/20
193/19 194/20	68/13 68/20 69/14	<b>solve [1]</b> 220/18
194/22 195/6 196/4	69/19 149/16	<b>some [55]</b> 11/14
196/15 197/10	149/24 150/3 150/4	14/12 19/22 22/20
197/13 197/21	150/14 151/1	37/25 52/3 52/5
198/24 199/5 199/8	<b>slide [34]</b> 19/11	73/4 94/12 94/12
199/16 199/17	20/13 20/24 21/25	94/13 96/11 98/19
199/18 201/8 202/2	27/9 28/10 32/25	108/21 111/1 115/3
202/9 202/22	36/17 39/9 41/12	115/7 116/25
203/10 203/17	41/19 43/9 44/23	117/11 118/9 120/8
204/2 204/10	49/10 49/23 54/3	123/2 125/1 133/21
211/10 214/2 214/3	56/22 63/9 64/24	134/10 135/11
239/19 241/12	65/16 66/6 66/13	135/12 141/14
243/12	75/6 76/8 77/20	142/5 142/7 144/24
<b>sit [4]</b> 26/5	77/20 80/21 81/18	155/6 158/13
138/13 143/20	84/4 85/5 85/19	159/25 160/1
196/6	86/12 89/14 91/3	163/18 164/8
<b>site [1]</b> 125/16	<b>slides [5]</b> 47/14	173/14 173/20
<b>sitting [3]</b> 103/21	60/4 83/9 89/2	174/4 175/18
103/23 143/8	91/17	178/14 180/9
<b>situation [2]</b> 5/19	<b>slightly [1]</b> 233/1	185/13 186/6

<b>S</b>	231/25 232/9	126/19 142/15
USCA11 Case: 22-11150 Document 53-13 Date Filed: 11/30/22 Page 128 of 254	<b>somebody</b> [32] 12/16	142/15 143/19
<b>some...</b> [10]	27/18 59/14 69/11	144/5 169/20
186/17 194/10	71/13 71/23 74/2	170/21 170/25
195/22 198/15	83/14 93/7 94/6	173/16 173/22
203/6 204/3 231/16	111/6 116/9 117/3	173/25 174/3
231/19 232/12	129/1 130/4 130/5	176/12 181/22
241/13	131/22 137/16	199/22 230/13
<b>somebody</b> [10]	141/15 164/19	230/13
31/14 33/25 63/19	164/21 164/22	<b>specifically</b> [16]
66/3 143/7 145/3	165/14 165/14	3/25 80/8 103/9
145/4 205/8 208/22	172/18 174/10	108/18 115/16
211/7	177/20 187/18	118/1 148/7 155/17
<b>somebody's</b> [1]	220/10 228/6	157/2 165/6 183/4
31/18	229/12 241/3	183/14 187/4 192/2
<b>somehow</b> [2] 144/11	<b>sort</b> [14] 11/4	214/17 234/24
163/24	22/12 30/23 33/17	<b>specifics</b> [3]
<b>someone</b> [7] 5/3	40/21 44/8 120/25	124/9 124/14
16/10 49/1 110/6	140/24 148/7	143/25
131/5 135/1 219/11	148/19 160/1 160/4	<b>speculation</b> [6]
<b>something</b> [18]	214/24 234/17	99/13 156/25
4/14 53/7 69/6	<b>sounded</b> [1] 73/25	166/22 169/7 181/2
95/13 109/12 110/4	<b>sounds</b> [1] 108/2	193/15
120/9 121/4 142/5	<b>source</b> [7] 30/22	<b>spell</b> [1] 214/8
144/15 145/14	62/13 121/5 138/11	<b>spelled</b> [3] 36/21
153/3 170/19	193/9 223/21 227/3	36/23 46/4
172/22 176/25	<b>sources</b> [9] 8/20	<b>spent</b> [3] 124/19
183/19 232/7	8/20 8/23 117/12	124/20 141/14
232/13	138/7 163/25	<b>spoken</b> [3] 132/3
<b>sometime</b> [1]	177/10 186/18	186/1 199/4
103/15	223/20	<b>squares</b> [1] 113/5
<b>sometimes</b> [8]	<b>South</b> [1] 1/14	<b>ss</b> [1] 244/2
105/23 109/6 132/6	<b>Southeast</b> [1] 1/17	<b>stamp</b> [6] 53/4
170/14 170/17	<b>SOUTHERN</b> [3] 1/1	65/9 132/12 132/14
173/13 173/19	244/3 244/6	132/16 132/22
173/20	<b>space</b> [1] 37/16	<b>stamps</b> [1] 90/3
<b>somewhere</b> [1]	<b>speak</b> [5] 73/3	<b>stand</b> [3] 67/5
72/20	154/4 186/19	72/17 222/25
<b>soon</b> [5] 21/9	214/21 239/12	<b>standing</b> [1] 214/3
21/11 46/7 46/10	<b>speaking</b> [1] 13/17	<b>stands</b> [1] 64/19
71/8	<b>speaks</b> [2] 54/13	<b>star</b> [1] 50/23
<b>sophisticated</b> [6]	198/19	<b>start</b> [17] 17/14
133/19 134/11	<b>specific</b> [21] 3/20	33/7 38/1 42/18
134/12 134/21	5/20 103/13 116/18	58/18 58/21 63/11



<b>S</b>	<b>stenographic [1]</b>	116/25 117/2 117/7
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 429 of 254	244/11	182/11 182/16
<b>start...</b> [10] 79/3	<b>step [14]</b> 15/8	217/1
81/3 94/17 102/6	66/24 67/1 74/13	<b>studied [2]</b> 160/15
102/8 103/15	75/9 94/22 94/22	199/18
128/17 129/19	95/1 95/12 95/23	<b>studies [4]</b> 93/15
159/16 223/6	96/1 111/6 225/23	97/14 176/14
<b>started [12]</b> 128/6	226/8	176/16
155/8 160/13	<b>STEPHEN [1]</b> 1/16	<b>study [3]</b> 178/5
215/22 219/24	<b>steps [2]</b> 110/9	216/23 238/24
221/14 222/18	111/8	<b>stuff [1]</b> 118/3
222/21 222/23	<b>still [5]</b> 76/18	<b>style [2]</b> 232/23
223/25 224/22	129/10 173/3	232/25
225/2	206/15 225/11	<b>styles [2]</b> 232/22
<b>starting [6]</b> 29/12	<b>stipulate [1]</b>	232/24
43/14 84/6 103/4	207/15	<b>subject [24]</b> 9/10
160/11 225/15	<b>stipulated [1]</b>	9/11 9/13 9/20
<b>starts [3]</b> 203/3	207/21	9/22 11/6 43/18
205/13 224/9	<b>stipulation [1]</b>	54/22 61/21 63/16
<b>state [11]</b> 7/16	207/16	69/1 86/2 100/8
73/6 119/23 122/22	<b>stood [1]</b> 232/7	122/8 123/20
214/8 223/24	<b>stop [9]</b> 16/5	125/19 148/6
229/10 229/15	68/22 70/19 70/22	186/14 203/2
235/14 240/10	120/22 120/24	210/22 211/18
242/13	218/25 237/2 239/5	213/13 214/15
<b>stated [4]</b> 180/9	<b>stopped [1]</b> 228/23	216/22
193/13 222/18	<b>stopping [1]</b>	<b>subjects [2]</b>
234/6	121/11	145/14 216/11
<b>statement [8]</b> 69/5	<b>storage [2]</b> 174/9	<b>submission [2]</b>
72/1 72/22 72/24	174/11	36/4 45/10
73/13 195/19 196/4	<b>store [2]</b> 33/12	<b>submissions [2]</b>
196/8	231/3	50/7 52/19
<b>statements [9]</b>	<b>stored [2]</b> 173/23	<b>submit [3]</b> 50/4
52/3 52/5 67/10	174/20	153/17 242/19
71/16 72/19 73/14	<b>straight [1]</b>	<b>submitted [22]</b> 6/3
73/16 73/18 73/19	102/17	36/1 36/12 45/6
<b>states [5]</b> 1/1	<b>Street [1]</b> 1/17	50/8 50/24 52/23
1/10 56/6 244/1	<b>string [3]</b> 71/25	55/3 124/4 124/5
244/6	79/21 79/25	124/18 141/3
<b>stating [1]</b> 8/20	<b>strings [3]</b> 22/12	153/10 153/14
<b>statistics [1]</b>	22/20 22/21	153/20 153/25
218/20	<b>striving [1]</b>	189/14 190/9
<b>stay [2]</b> 68/20	241/24	190/10 190/23
157/23	<b>structure [6]</b>	190/24 234/4

<b>S</b>	113/21	33/14 34/5 34/17
<b>subpoena</b> [4]	<b>support</b> [1]	35/14 48/5 50/13
113/22 113/24	<b>suppose</b> [19]	52/18 54/15 57/6
114/4 114/14	95/2 96/13 108/18	58/16 62/19 78/8
<b>subscriber</b> [1]	127/17 127/22	80/14 82/25 99/9
113/20	128/18 128/24	100/5 101/16
<b>subsequent</b> [2]	129/9 129/24 135/8	101/21 135/21
119/1 120/12	139/18 147/22	136/7 146/1 149/12
<b>subset</b> [2]	148/2 168/8 170/22	149/18 152/11
156/23	184/9 185/17	155/12 158/4
<b>subsidy</b> [1]	200/13	158/20 162/8 164/3
<b>substantive</b> [1]	<b>supposed</b> [3]	166/10 168/15
45/15	196/21 200/1 217/9	169/8 175/9 178/8
<b>suburb</b> [3]	<b>supposedly</b> [1]	180/7 184/13
140/18 207/15	199/10	190/12 191/14
<b>such</b> [9]	<b>supposing</b> [1]	193/5 193/17 198/1
97/16	<b>sure</b> [49]	204/8 204/12
98/7 100/18 103/9	6/17	205/11 208/19
117/12 138/7 149/3	10/25 12/13 13/2	210/11 210/25
170/23 182/7	17/12 43/14 46/8	211/23 221/17
<b>suddenly</b> [1]	49/4 58/2 62/22	222/10
15/5	65/6 70/7 70/21	
<b>sue</b> [5]	81/5 82/13 91/9	<b>swore</b> [3]
67/9 69/20	93/22 94/14 95/20	54/20
69/25 71/15 71/18	96/24 107/18	55/16 86/10
<b>suggest</b> [1]	117/20 118/9 122/3	<b>sworn</b> [6]
107/14	126/18 126/21	53/15
<b>suggested</b> [2]	128/4 128/9 130/3	54/11 55/6 209/17
5/10	130/5 134/2 137/10	209/24 214/5
208/24	137/11 139/21	<b>Sydney</b> [2]
<b>suggesting</b> [4]	146/14 155/4 156/6	140/14
8/14 9/4 157/20	166/5 168/11	140/21
205/3	169/25 171/4	
<b>suggestions</b> [1]	196/12 206/24	<b>synonymous</b> [1]
211/6	217/6 223/13	106/15
<b>suggests</b> [5]	225/11 235/20	<b>system</b> [10]
69/20	242/18 243/13	28/16
76/4 78/10 89/6	<b>surgery</b> [1]	130/1 174/6 174/8
91/16	203/7	174/12 217/9 218/2
<b>suing</b> [1]	<b>surrounding</b> [1]	230/1 230/9 232/8
67/15	54/9	<b>system-related</b> [1]
<b>Suite</b> [3]	<b>suspect</b> [1]	174/6
1/14	123/1	<b>systems</b> [6]
1/17 1/21	<b>suspects</b> [1]	93/13
<b>sun</b> [1]	111/9	147/24 215/24
205/13	<b>suspensions</b> [1]	216/9 238/18
<b>supplemental</b> [1]	158/1	238/20
153/17	<b>sustained</b> [50]	
<b>support</b> [1]		<b>T</b>
189/22		<b>table</b> [1]
<b>supported</b> [2]		243/19
98/11 100/1		<b>tactic</b> [2]
<b>supporting</b> [1]		67/13

<b>T</b>	101/6 106/10 108/7	<b>term [2]</b> 4/15
<b>tactic...</b> [1]	108/8 119/14	<b>termed [1]</b> 184/8
70/14	128/21 134/5	<b>terms [3]</b> 53/9
<b>take [51]</b> 9/25	143/15 170/1	185/11 241/19
11/11 12/1 17/16	170/21 171/1 174/3	<b>terrible [1]</b> 98/19
20/8 23/22 23/23	177/6 181/22	<b>test [12]</b> 14/3
25/24 26/8 31/21	182/11 227/17	95/13 95/24 128/13
35/17 37/25 42/14	<b>talks [1]</b> 218/10	128/22 129/7
44/21 46/21 58/22	<b>Taxation [1]</b> 175/3	129/13 144/1 144/3
66/14 66/17 66/19	<b>team [1]</b> 21/20	144/8 158/23 232/7
68/23 69/18 75/9	<b>teams [1]</b> 232/18	<b>tested [2]</b> 128/23
78/14 83/6 83/14	<b>technical [1]</b>	180/16
88/10 91/17 94/8	216/11	<b>testified [29]</b>
94/22 96/14 111/7	<b>technologies [1]</b>	3/25 5/13 44/14
121/13 122/13	216/1	50/21 60/23 86/20
126/20 136/9	<b>technology [5]</b>	97/24 105/10
136/11 136/20	214/17 215/19	105/12 105/14
136/24 139/3	215/24 216/2 217/1	117/24 125/3 125/4
159/25 171/22	<b>television [1]</b>	134/6 148/10 150/3
184/21 188/25	144/20	151/14 158/24
204/5 213/21	<b>tell [29]</b> 21/8	172/25 174/14
222/13 230/16	34/19 40/4 43/12	175/16 175/20
237/11 240/13	44/10 44/11 48/20	191/8 191/11 197/4
241/17 243/17	49/13 76/2 91/15	208/25 209/3
<b>taken [4]</b> 47/25	103/22 105/19	224/19 225/2
105/19 110/9	109/4 109/7 115/23	<b>testify [15]</b> 6/20
176/25	117/20 118/19	11/13 12/16 31/5
<b>taking [2]</b> 9/9	120/2 120/4 120/5	51/4 52/1 52/2
140/8	137/2 143/3 143/21	69/24 124/2 124/11
<b>talk [18]</b> 7/2 44/6	156/10 162/15	125/2 150/6 151/16
63/1 64/5 70/24	162/17 215/14	214/16 224/24
73/23 134/15	215/20 220/20	<b>testifying [9]</b>
139/23 141/23	<b>telling [5]</b> 11/18	5/21 9/1 104/6
143/25 176/16	204/2 204/5 204/10	104/9 104/12 105/4
176/19 180/21	231/2	112/2 122/2 176/15
182/10 185/13	<b>tells [6]</b> 34/21	<b>testimonies [1]</b>
185/21 186/10	43/12 44/12 48/21	120/17
241/15	49/13 230/23	<b>testimony [54]</b>
<b>talked [5]</b> 113/6	<b>ten [3]</b> 107/20	3/15 3/22 4/8 4/9
178/12 180/21	155/14 205/5	6/8 7/18 7/20 7/24
191/7 235/21	<b>tend [2]</b> 97/10	8/25 13/22 14/21
<b>talking [20]</b> 4/6	189/22	52/16 52/18 58/4
84/18 95/4 95/5	<b>tends [2]</b> 96/2	67/8 67/16 69/21
	96/3	

<b>T</b>	186/2 188/9 192/4	134/12 134/16
<b>testimony...</b> [37]	207/13 207/21	134/21 135/8
70/4 71/19 74/14	231/19 242/10	137/14 138/16
82/16 93/5 98/7	<b>thank</b> [31] 12/4	141/15 147/6
104/5 105/20	14/9 14/14 16/25	148/17 152/15
105/23 120/14	45/24 57/16 60/18	152/16 153/16
122/25 124/25	66/25 77/22 81/17	154/21 156/5
126/13 137/3 148/6	107/19 120/1 125/6	156/14 156/16
148/10 150/18	146/12 161/2	160/21 161/19
151/8 151/11	166/13 184/24	163/15 167/8
151/15 151/21	194/20 196/15	172/14 173/6
152/5 176/6 183/17	198/8 205/14	174/13 176/25
187/2 188/3 191/9	205/15 207/10	179/12 179/22
197/1 197/3 204/23	212/17 213/9 214/6	182/4 183/8 194/4
210/17 214/13	214/21 226/17	195/19 196/18
214/15 223/9	226/18 229/5	196/21 200/16
224/21 235/20	242/16	205/19 208/24
239/25	<b>Thanksgiving</b> [2]	209/7 210/24
<b>testimony says</b> [1]	229/8 229/11	211/17 211/19
151/8	<b>that</b> [1160]	217/12 217/14
<b>testing</b> [3] 95/21	<b>that's</b> [108] 3/19	219/6 223/9 225/9
95/21 176/12	4/22 5/22 6/4 6/14	226/24 232/13
<b>tests</b> [1] 232/18	11/7 11/16 11/17	232/18 233/7
<b>text</b> [21] 20/25	17/20 19/15 21/1	<b>their</b> [18] 6/11
22/13 22/20 28/18	25/6 25/22 32/20	8/11 31/18 51/11
28/20 40/6 40/7	32/21 37/6 43/24	52/14 63/25 69/21
40/10 40/11 40/16	48/15 59/21 68/18	108/5 122/2 138/6
40/18 40/19 40/23	68/25 70/23 73/17	138/11 145/10
43/11 49/16 86/23	75/24 79/13 80/5	213/16 215/22
134/13 134/15	91/1 94/19 94/19	216/2 216/9 217/11
176/16 176/19	94/22 95/16 96/13	240/8
198/18	100/11 100/16	<b>them</b> [44] 17/9
<b>than</b> [30] 7/23	100/24 101/8 102/5	17/20 22/25 22/25
17/5 73/18 80/11	108/11 110/13	26/5 29/21 37/11
90/11 102/25 103/7	110/17 111/10	69/25 70/1 79/9
103/12 107/7	114/18 114/25	98/19 100/19 103/5
110/13 116/13	115/1 116/24	106/11 109/9 110/7
121/4 124/21	120/10 120/19	111/9 117/25 131/3
128/25 132/14	121/11 124/6	147/2 152/24
139/8 139/12	124/23 126/14	156/21 157/3 157/7
140/14 153/18	127/1 127/16 128/8	158/17 158/18
153/22 162/16	128/11 128/12	160/18 162/17
162/22 183/19	128/21 131/23	163/23 177/25
	132/12 134/10	178/16 178/17

<b>T</b>	239/3 241/18	141/11 141/17
USCA11 Case: 22-11150 Document: 38-13 Date Filed: 11/30/22 Page: 133 of 254	<b>theoretical [1]</b>	148/14 152/18
<b>them...</b> [12]	217/8	153/2 154/3 154/15
185/21 190/24	<b>theorized [1]</b> 96/2	154/15 160/10
196/7 197/5 197/6	<b>theory [19]</b> 94/15	162/15 163/25
197/15 198/14	94/24 94/24 95/8	166/1 166/19 171/2
203/9 237/17	95/8 95/13 96/6	171/2 172/22
238/19 240/16	96/10 127/16	175/25 177/11
242/21	127/23 127/24	177/22 180/1 180/3
<b>theme [1]</b> 51/13	128/12 129/7 180/4	181/11 181/13
<b>themselves [3]</b>	193/12 218/20	181/24 186/2 186/2
5/12 8/23 185/12	218/22 218/23	186/16 197/18
<b>then [78]</b> 12/6	219/2	197/18 197/23
17/12 23/9 27/6	<b>there [160]</b> 3/6	198/3 198/10 202/2
29/20 32/21 39/16	4/5 5/13 7/3 7/12	203/17 203/17
41/16 43/20 49/4	8/6 9/25 11/9 17/7	206/20 211/6
52/10 53/14 56/8	17/9 19/1 19/3	211/18 212/4 212/9
71/16 71/24 72/21	19/20 19/20 26/1	212/12 212/23
73/9 76/20 81/4	29/19 37/11 39/12	212/25 214/24
81/14 85/8 85/23	39/18 39/22 40/6	223/8 227/9 227/10
94/15 94/22 94/25	41/1 44/1 48/9	228/11 228/20
95/12 96/1 97/6	52/6 56/8 58/19	228/21 228/23
97/6 97/10 103/25	59/17 60/7 60/20	229/24 229/24
105/12 110/25	60/22 62/2 64/21	231/10 231/11
113/14 113/23	67/10 67/13 67/18	232/10 232/12
121/20 122/23	68/23 69/5 69/6	232/12 234/13
124/13 124/16	70/12 70/12 71/17	234/16 235/5 236/1
125/1 126/9 127/1	72/15 74/4 76/10	236/3 237/2 237/6
127/5 128/14	76/23 77/3 77/15	238/24 239/22
128/14 128/19	78/10 79/12 82/4	241/1 242/1 242/9
132/9 134/20 138/2	83/2 83/10 84/7	242/24 243/14
150/22 155/7	85/2 85/24 87/24	<b>there's [42]</b> 5/5
156/22 157/7	88/2 89/11 89/25	5/18 5/18 6/9 6/18
160/12 160/20	90/3 90/8 91/25	7/6 8/4 10/23 12/5
173/2 175/6 177/11	92/2 92/6 92/7	27/3 40/20 44/1
182/1 184/20	93/6 98/18 98/22	51/1 53/15 70/24
188/16 194/17	100/18 103/6 103/9	71/19 72/20 95/23
195/3 201/16	104/9 105/7 108/5	97/15 107/13
202/13 207/18	110/22 112/21	108/10 108/21
213/15 213/22	117/18 117/23	110/21 110/25
215/17 216/5	123/15 123/15	112/13 142/2 156/6
216/23 217/15	129/18 129/25	166/8 171/5 175/16
220/19 221/15	133/21 135/11	182/7 199/8 206/22
225/19 226/21	138/7 139/5 139/12	217/9 217/13

<b>T</b>	197/13 198/5	42/7 48/18 52/13
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 134 of 254	198/25 199/1	57/9 59/16 106/15
<b>there's...</b> [7]	217/16 223/18	139/20 165/2
217/15 230/24	232/5 232/6 242/10	182/13 192/19
230/25 231/15	<b>theses</b> [1] 190/23	<b>thing</b> [14] 12/10
232/22 236/22	<b>thesis</b> [6] 190/1	13/10 52/25 72/6
239/1	190/5 190/9 190/19	72/14 72/18 98/25
<b>thereafter</b> [1]	190/21 191/1	109/12 118/5
71/16	<b>they</b> [82] 5/12	178/10 179/15
<b>therefore</b> [5] 4/3	6/24 7/1 11/3	182/7 226/24
4/17 11/19 111/7	16/13 17/11 22/24	226/25
201/24	32/11 41/24 48/21	<b>things</b> [15] 6/7
<b>these</b> [84] 4/25	50/8 51/12 51/18	37/25 72/4 72/21
8/20 9/10 9/11	51/24 52/1 52/1	98/22 109/24
10/18 10/19 11/4	52/6 52/9 52/9	129/25 134/15
11/6 11/18 13/19	52/10 52/10 52/23	141/20 144/11
50/20 50/23 52/3	63/21 70/1 73/14	154/23 179/14
52/5 65/20 70/8	74/23 85/15 86/1	185/11 231/17
75/17 85/7 85/11	86/4 98/23 103/5	241/25
85/16 85/24 101/18	106/14 106/14	<b>think</b> [80] 7/10
105/23 106/2 106/4	113/23 114/17	7/21 10/16 10/18
106/7 107/10	114/22 118/4	10/21 11/4 11/7
107/17 107/20	118/23 126/4	11/12 13/9 13/18
108/7 108/11	126/11 130/15	13/25 17/22 18/6
110/15 110/20	130/23 132/24	31/6 39/17 45/15
120/20 127/17	138/6 138/8 138/11	56/6 60/3 60/22
129/13 133/19	143/7 143/8 144/22	65/6 68/23 74/18
134/15 135/9	145/5 156/12	77/20 85/7 94/10
135/14 136/16	156/15 156/18	95/21 97/12 103/5
136/22 141/10	156/19 156/19	105/11 105/11
141/14 141/15	156/22 157/2 157/7	107/16 108/14
144/11 144/23	158/6 163/24	108/20 111/15
145/16 148/22	174/20 174/24	112/11 122/6
150/23 158/1	175/17 177/20	123/11 123/22
158/22 159/11	178/6 182/15	123/22 124/19
159/23 160/15	185/21 186/11	126/17 126/19
162/19 174/23	196/24 197/5	127/13 130/3 130/5
175/2 177/5 177/19	197/14 207/2 210/4	133/8 133/10
177/20 178/3 178/3	210/4 211/11	133/18 133/23
178/5 178/11 180/4	222/23 223/19	134/1 134/9 137/4
182/18 183/11	223/22 233/15	139/24 143/25
185/14 185/20	236/6 241/25 243/7	144/5 146/4 148/8
186/3 186/5 193/13	<b>they're</b> [14] 7/1	148/17 151/6
194/11 197/4	10/22 10/23 10/25	151/20 154/3 158/9



<b>T</b>	177/13 177/21	64/6 64/7 65/6
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 135 of 254	177/23 177/24	69/14 75/8 75/15
<b>think...</b> [18]	178/4 178/19 179/5	76/20 76/25 79/6
165/19 170/25	181/14 184/4	79/9 81/2 84/8
172/14 173/25	185/24 186/6	85/12 91/8 91/21
180/21 182/10	197/11 200/19	94/8 112/6 143/5
183/18 190/3	203/21 204/2 204/6	203/9 204/25 205/1
194/14 195/22	205/1 210/7 216/13	205/5 205/9 208/23
205/19 217/6 217/6	223/24 235/21	209/10 219/22
219/15 241/16	236/4 238/14	223/10 239/2 242/7
242/4 242/22 243/1	238/15 238/22	<b>throughout</b> [1]
<b>thinking</b> [2] 4/19	238/25 239/1	73/16
96/9	<b>though</b> [4] 60/3	<b>thrown</b> [1] 50/9
<b>third</b> [7] 6/7	86/3 122/3 127/18	<b>Thursday</b> [6] 13/3
62/13 95/23 117/12	<b>thought</b> [5] 12/21	46/5 77/5 77/7
186/18 220/10	13/23 155/15	77/8 242/7
237/1	169/22 176/9	<b>tie</b> [1] 149/11
<b>third-party</b> [3]	<b>thousand</b> [6]	<b>tied</b> [2] 113/18
62/13 117/12	116/13 140/14	116/18
186/18	153/3 153/7 154/5	<b>ties</b> [1] 113/10
<b>this</b> [493]	155/14	<b>time</b> [120] 3/7
<b>those</b> [91] 5/17	<b>thousand-plus</b> [1]	3/11 5/9 12/14
6/7 9/4 9/13 9/16	154/5	13/1 13/7 13/24
9/17 10/3 10/6	<b>thousands</b> [4]	17/20 20/3 21/17
10/12 11/1 11/19	127/20 152/19	23/10 25/4 27/6
11/20 11/23 12/2	152/23 155/18	35/6 35/8 39/15
15/16 22/3 22/21	<b>threat</b> [1] 73/9	39/20 39/22 44/12
22/22 22/23 23/2	<b>three</b> [22] 4/6	44/18 49/19 49/21
23/12 29/20 40/22	5/13 5/15 7/2	61/3 61/23 63/2
50/7 52/18 55/6	10/23 22/7 27/22	63/2 63/18 64/3
56/10 58/1 61/13	35/10 35/11 43/19	66/18 66/23 67/25
63/11 73/13 73/18	85/13 85/16 85/24	71/24 73/1 78/21
74/22 80/9 89/16	87/25 93/10 95/12	79/11 82/11 92/11
91/8 91/9 91/11	105/12 105/15	92/23 101/23 103/7
91/17 92/8 106/14	153/18 158/15	103/12 115/25
108/9 108/20	196/14 196/15	116/14 118/14
117/20 120/15	<b>threshold</b> [1]	118/19 119/25
122/9 126/3 145/24	29/19	120/24 122/14
148/25 149/1 149/4	<b>through</b> [46] 1/8	122/23 122/24
151/2 151/2 151/4	7/5 8/14 8/19 8/25	123/2 123/7 124/7
151/5 154/4 156/8	28/19 28/21 43/11	124/8 124/9 124/13
159/5 159/17	52/17 60/4 61/10	124/16 124/19
163/18 163/21	61/13 61/15 62/6	124/20 124/23
175/20 176/9 177/7	62/17 64/5 64/5	125/2 125/24 126/3



<b>T</b>	169/21 177/12	18/25 22/10 29/11
<b>time...</b> [57]	<b>timestamps</b> [2]	35/3 57/18 82/14
126/10 126/25	79/19 177/13	84/7 84/10 130/8
127/1 127/5 127/10	<b>timing</b> [2] 122/19	167/20 236/22
127/24 128/14	211/2	<b>topic</b> [1] 233/2
128/15 128/16	<b>title</b> [1] 102/3	<b>total</b> [2] 15/15
128/16 128/20	<b>toaster</b> [2] 97/7	103/2
129/15 137/3	97/7	<b>totaled</b> [1] 103/7
141/14 145/7	<b>today</b> [21] 14/12	<b>touch</b> [1] 134/13
145/10 147/5 154/1	67/5 69/21 84/21	<b>touch-up</b> [1]
158/12 174/24	92/7 98/1 105/23	134/13
174/24 177/6	106/1 107/16 108/8	<b>TouchUp</b> [6] 40/5
177/11 177/11	108/12 120/17	40/16 40/19 134/15
181/1 181/14	138/13 144/8 146/5	176/16 176/19
181/16 181/20	147/5 174/14	<b>toward</b> [1] 71/4
181/21 182/4 182/5	178/12 214/13	<b>town</b> [3] 142/11
182/7 184/18 192/4	216/5 216/6	142/12 142/18
203/9 203/22 209/7	<b>today's</b> [1] 14/11	<b>trading</b> [6] 19/21
212/10 212/20	<b>toe</b> [2] 69/25	58/10 86/19 87/10
213/21 220/4	69/25	87/19 88/5
228/23 229/22	<b>together</b> [2]	<b>traffic</b> [1] 143/5
230/13 230/15	222/25 232/5	<b>training</b> [1] 239/2
232/7 232/12	<b>told</b> [7] 13/17	<b>transact</b> [2] 98/23
232/16 234/23	72/15 101/23	219/11
239/7 239/22 240/8	131/22 157/14	<b>transacting</b> [2]
241/11 241/18	169/4 196/23	99/1 219/9
242/25 243/17	<b>tolerate</b> [1] 73/11	<b>transaction</b> [1]
<b>time-sensitive</b> [2]	<b>tomorrow</b> [7] 14/12	99/3
3/11 66/23	239/8 239/15	<b>transactions</b> [4]
<b>timeline</b> [6]	239/18 241/12	197/5 197/7 217/17
219/22 222/25	241/15 243/18	229/24
223/6 225/5 225/16	<b>too</b> [7] 13/17	<b>transcript</b> [6] 1/9
229/3	21/11 22/13 46/9	31/1 235/8 244/10
<b>times</b> [11] 105/10	212/11 212/21	244/11 244/12
105/12 105/20	214/20	<b>transcripts</b> [1]
106/4 106/7 106/10	<b>took</b> [6] 97/14	30/18
126/12 126/17	104/25 133/23	<b>transfer</b> [2] 87/11
133/8 165/18	144/8 154/9 176/8	87/13
230/16	<b>tool</b> [2] 117/17	<b>transferred</b> [2]
<b>timestamp</b> [11]	192/17	87/10 217/14
39/17 78/20 79/13	<b>tools</b> [4] 110/6	<b>transport</b> [7]
79/15 79/17 80/2	147/21 147/23	42/19 76/20 77/1
80/5 90/16 90/16	148/8	78/17 79/8 81/11
	<b>top</b> [12] 18/22	208/9

<b>T</b>	<b>Tuesday [2]</b> 14/11	99/21 100/2
<b>treated [1]</b> 128/25	<b>Tulip [8]</b> 56/8	<b>Unauthorized [1]</b> 110/7
<b>trial [9]</b> 1/9 53/8	58/10 81/1 85/23	<b>unavailability [1]</b> 202/11
73/17 73/20 97/25	86/18 87/10 87/19	<b>unaware [1]</b> 68/17
103/23 104/2	88/5	<b>under [5]</b> 14/23
153/19 240/18	<b>turn [3]</b> 14/2	87/15 112/14
<b>trials [1]</b> 242/1	213/22 240/13	129/22 214/4
<b>tried [2]</b> 175/23	<b>turned [1]</b> 155/7	<b>undercuts [1]</b> 7/10
185/13	<b>two [48]</b> 6/5 6/7	<b>underlying [3]</b> 9/12 10/1 214/17
<b>trouble [3]</b> 59/15	7/2 16/21 17/9	<b>underneath [1]</b> 161/18
129/1 214/20	17/10 18/3 20/11	<b>understand [72]</b> 4/8 5/16 6/9 11/2
<b>true [26]</b> 6/7 8/3	24/20 24/20 27/7	13/22 31/7 34/11
94/25 97/17 117/16	27/23 31/6 35/10	34/13 35/25 36/2
117/18 117/23	36/12 39/20 47/19	39/23 40/20 45/5
119/16 119/24	48/13 48/21 49/2	45/6 45/8 50/6
120/16 120/19	65/20 72/4 74/23	50/7 50/9 52/17
129/8 131/7 131/9	75/17 75/18 75/19	54/19 56/14 58/8
139/6 147/17 149/7	76/4 94/22 110/21	62/1 82/18 84/14
154/12 154/16	117/16 117/18	88/5 95/4 102/11
155/14 166/19	117/20 117/23	106/13 108/12
170/17 186/3	121/25 124/17	120/8 127/19 129/5
197/18 197/23	125/16 146/20	132/19 137/11
244/10	146/21 152/18	138/8 139/14 140/2
<b>trust [17]</b> 19/18	153/4 177/10	141/9 141/19 142/1
19/22 23/10 26/2	182/18 183/11	144/10 145/23
29/16 29/23 81/1	216/13 233/15	148/22 154/8 154/9
85/23 86/17 87/9	241/3 243/2 243/17	155/4 155/5 156/7
87/18 88/17 89/9	<b>type [6]</b> 71/3 73/4	157/5 163/15
89/17 121/18	73/12 173/22	163/25 168/10
125/11 198/15	233/20 238/14	173/12 176/6
<b>Trust.pdf [1]</b> 56/9	<b>types [2]</b> 127/18	176/14 177/2
<b>truth [5]</b> 32/14	231/10	192/17 193/21
32/20 36/10 105/19	<b>typically [11]</b> 40/7 62/13 64/20	195/19 196/4
222/7	79/13 80/2 113/19	208/14 208/21
<b>try [14]</b> 13/21	145/9 145/12	208/24 209/18
14/1 14/2 111/8	232/14 233/9	210/1 213/20
114/2 117/5 142/17	233/16	230/12 231/14
154/5 178/25 179/1		232/2 232/19
186/10 186/15		235/11
189/10 197/13	<b>U</b>	
<b>trying [6]</b> 56/7	<b>U.S [1]</b> 1/23	
73/22 73/23 120/8	<b>UK [2]</b> 19/19 23/9	
179/4 179/10	<b>Ulbricht [3]</b> 99/2	

<b>U</b>	43/24 46/21 47/4	141/11 143/3
USGA11 Case: 22-11150 Document: 58-13 Date Filed: 11/30/2022 Page: 138 of 254	53/15 56/21 57/13	142/21 151/21
<b>understanding [12]</b>	59/16 68/25 70/1	156/10 175/19
32/1 32/3 50/8	78/13 83/6 84/7	181/1 181/9 183/18
78/4 94/9 115/17	88/11 89/17 90/3	205/13 242/18
123/23 174/17	90/8 92/6 96/16	<b>use [57]</b> 3/15 3/21
209/12 218/18	97/11 98/14 99/6	3/23 4/12 4/15
233/7 235/1	116/7 118/15	4/17 5/11 5/20
<b>understood [3]</b>	118/22 121/1	5/22 6/2 6/5 7/22
32/21 73/21 122/8	122/13 123/7	8/1 8/23 9/14 9/22
<b>unfairly [1]</b> 7/11	123/10 129/14	14/7 23/8 33/11
<b>unintentionally [1]</b>	132/8 134/13 141/2	33/16 33/18 34/19
170/15	142/14 143/12	35/4 51/25 52/7
<b>unique [1]</b> 160/2	143/13 144/8	52/10 53/9 67/7
<b>UNITED [4]</b> 1/1	148/25 161/10	71/11 71/18 82/10
1/10 243/22 244/6	161/16 163/10	96/15 101/12
<b>universe [1]</b> 157/7	164/9 165/10 167/4	117/17 118/11
<b>university [10]</b>	187/13 188/16	122/24 131/24
190/1 190/5 190/6	197/5 201/16	134/24 135/2 143/5
190/10 190/23	201/18 203/4 208/3	143/21 144/17
190/25 191/2	208/4 209/14	151/5 152/3 158/22
215/17 215/18	210/12 210/13	159/3 159/5 183/16
216/22	212/25 213/21	183/17 183/25
<b>unless [2]</b> 80/6	214/21 220/5	192/17 216/2 223/1
129/7	220/24 230/12	231/20 231/25
<b>unlikely [1]</b>	236/6 236/7 240/9	232/3 243/19
212/22	<b>update [3]</b> 173/14	<b>used [44]</b> 7/7 8/21
<b>unquote [2]</b> 67/9	173/14 173/21	10/4 10/21 21/9
71/15	<b>updated [1]</b> 173/3	33/12 33/22 33/25
<b>until [11]</b> 30/10	<b>updates [2]</b> 154/3	35/1 35/7 35/9
30/11 88/6 90/13	173/20	51/18 61/16 62/5
90/18 91/16 96/11	<b>uploaded [1]</b> 243/3	62/6 64/11 73/14
203/7 230/12	<b>upon [3]</b> 193/9	79/13 80/2 84/19
240/18 241/9	224/5 225/7	84/19 84/20 84/22
<b>untraded [3]</b> 26/4	<b>us [37]</b> 14/11	84/24 84/24 88/1
195/22 196/6	14/12 14/23 15/7	101/8 105/8 105/23
<b>up [87]</b> 4/18 4/19	16/5 17/10 21/9	106/1 110/7 143/12
5/6 6/1 6/10 12/14	29/18 34/19 34/21	144/9 144/11 145/4
12/24 13/7 13/20	40/4 40/4 43/12	145/4 146/4 147/23
15/21 17/18 19/13	44/11 44/12 48/20	149/23 150/2
19/18 20/25 21/4	48/21 49/13 61/13	164/14 177/1
22/10 22/25 23/5	76/2 84/8 91/15	199/23 228/20
29/4 29/11 37/6	94/10 103/22	<b>user [5]</b> 27/8
37/10 40/14 42/15	134/23 137/22	118/7 135/19 145/7

<p><b>U</b></p> <p>USCA11 Case: 22-11150 Document: 58-13 Date Filed: 11/30/22 Page 139 of 254</p> <p><b>user...</b> [1] 181/24</p> <p><b>users</b> [4] 28/19 28/20 33/18 33/23</p> <p><b>uses</b> [1] 4/2</p> <p><b>using</b> [10] 4/4 9/3 24/3 29/18 65/21 144/9 160/5 217/2 221/13 223/5</p> <p><b>usually</b> [2] 40/18 241/25</p> <p><b>UTC</b> [21] 27/6 39/15 39/18 39/19 39/19 39/20 39/20 61/3 61/23 63/4 63/5 63/18 89/7 127/8 127/9 128/15 128/25 128/25 129/6 129/6 129/15</p> <p><b>UTC-4</b> [1] 128/25</p> <p><b>utilize</b> [1] 238/16</p> <p><b>utilizing</b> [2] 233/10 233/16</p> <p><b>Uyen</b> [13] 29/20 36/21 37/8 37/14 39/7 45/2 46/4 46/6 50/3 50/3 178/14 185/25 208/17</p>	<p><b>variations</b> [1] 210/5</p> <p><b>variety</b> [2] 218/17 230/24</p> <p><b>various</b> [4] 105/22 216/1 217/8 232/6</p> <p><b>vast</b> [1] 203/20</p> <p><b>verbal</b> [2] 183/12 198/17</p> <p><b>verbose</b> [1] 232/2</p> <p><b>verified</b> [2] 22/25 90/14</p> <p><b>verify</b> [4] 35/1 35/4 90/10 90/12</p> <p><b>Verizon</b> [1] 137/23</p> <p><b>version</b> [15] 59/9 65/19 65/22 65/23 75/11 76/12 76/13 80/10 81/7 81/9 137/4 145/13 180/18 189/25 227/3</p> <p><b>versions</b> [5] 75/20 81/2 180/10 180/11 181/13</p> <p><b>versus</b> [2] 105/4 144/14</p> <p><b>very</b> [22] 3/23 5/20 13/22 95/12 96/14 110/17 111/10 115/21 126/24 133/19 134/21 135/7 148/17 183/16 211/18 217/16 231/25 232/1 232/2 232/5 232/9 232/14</p> <p><b>vest</b> [1] 29/23</p> <p><b>via</b> [1] 12/23</p> <p><b>video</b> [2] 31/5 207/8</p> <p><b>view</b> [2] 230/12 235/4</p> <p><b>villain</b> [1] 23/9</p>	<p><b>virtual</b> [3] 143/4 144/18 144/19</p> <p><b>visible</b> [1] 41/4</p> <p><b>visual</b> [1] 182/11</p> <p><b>visually</b> [6] 22/24 57/1 57/10 81/7 81/9 182/13</p> <p><b>volume</b> [1] 197/7</p> <p><b>volunteer</b> [1] 120/8</p> <p><b>volunteering</b> [1] 120/10</p> <p><b>VPN</b> [11] 143/3 143/4 143/7 143/12 143/13 143/21 144/1 144/9 144/11 144/25 145/4</p> <p><b>VPNs</b> [1] 144/17</p> <p><b>vs</b> [1] 1/6</p> <p><b>W</b></p> <p><b>wait</b> [4] 92/14 117/22 150/23 228/12</p> <p><b>waiting</b> [1] 121/20</p> <p><b>waiving</b> [1] 68/15</p> <p><b>wake</b> [1] 96/16</p> <p><b>walk</b> [7] 43/11 61/13 79/6 81/2 84/8 85/12 91/8</p> <p><b>walked</b> [1] 91/21</p> <p><b>wallet</b> [1] 33/17</p> <p><b>want</b> [47] 11/3 12/13 12/23 13/21 14/1 16/5 25/25 26/3 26/6 40/12 40/20 52/10 53/16 54/8 62/1 63/1 63/8 64/15 68/16 68/22 69/24 70/22 79/21 94/8 104/4 116/6 116/11 122/3 122/19 122/24 123/6 124/9 124/15</p>
---	--	--

<b>W</b>	239/9 242/17	<b>website [9]</b> 9/20
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 140 of 254	<b>ways [2]</b> 96/9	30/22 59/8 98/15
<b>want...</b> [14]	230/24	98/24 230/11 234/3
124/20 124/24	<b>we [319]</b>	234/11 234/14
126/20 134/14	<b>we'd [3]</b> 25/5	<b>websites [2]</b> 99/2
144/23 146/3 149/4	96/21 206/16	99/8
207/16 223/11	<b>we'll [24]</b> 16/21	<b>Webster [1]</b> 4/20
224/8 226/15	22/6 23/24 30/5	<b>Wednesday [1]</b>
235/20 240/20	35/16 37/10 50/23	103/25
242/18	55/23 60/3 74/14	<b>week [1]</b> 241/23
<b>wanted [9]</b> 13/12	81/25 83/2 88/11	<b>weeks [2]</b> 30/12
29/16 70/22 96/25	122/7 122/10	153/22
117/14 122/17	122/18 135/14	<b>weight [2]</b> 6/8
124/16 125/19	137/20 185/9 209/8	6/11
126/7	223/1 239/18	<b>welcome [5]</b> 74/11
<b>wants [3]</b> 69/14	240/23 243/1	74/13 121/18 125/9
69/19 69/19	<b>we're [52]</b> 7/5 7/9	185/7
<b>Warren [4]</b> 30/17	7/21 9/23 12/13	<b>well [50]</b> 8/17
30/25 31/1 186/19	13/2 13/4 13/12	9/19 10/1 25/6
<b>Warren's [1]</b> 30/17	15/14 16/10 20/18	33/10 37/20 53/18
<b>was [400]</b>	28/22 29/4 34/2	67/15 67/23 70/3
<b>wasn't [16]</b> 30/11	37/16 37/24 40/2	71/6 71/21 73/2
68/18 73/22 73/23	42/8 50/2 53/14	73/25 79/8 89/11
90/12 111/4 115/15	55/15 58/21 60/23	93/23 95/3 96/22
129/17 134/7 140/6	65/18 66/21 72/5	96/25 97/1 114/4
148/15 178/4	72/13 72/25 81/2	115/22 116/25
185/19 208/22	81/21 83/8 84/6	117/22 120/21
233/23 235/18	85/22 87/22 107/18	123/25 124/19
<b>waste [1]</b> 123/7	108/7 121/20	138/25 141/1
<b>watch [1]</b> 144/20	121/20 126/21	143/11 147/23
<b>way [34]</b> 5/6 52/13	129/17 152/10	162/12 166/7 174/1
53/9 71/22 72/5	169/25 183/6	178/10 178/15
109/13 129/12	184/23 206/22	179/4 181/24 184/6
134/14 134/16	213/25 216/8	185/19 190/14
142/1 162/17	216/10 219/18	191/19 192/23
165/15 173/23	221/13 225/15	199/23 200/23
178/25 184/8 192/5	241/20	218/13 225/1 234/3
194/10 198/3	<b>we've [12]</b> 40/21	242/2
198/10 200/15	59/19 80/24 84/20	<b>well-known [2]</b>
200/16 201/22	85/7 91/19 91/21	67/15 192/23
202/18 203/15	92/6 92/7 122/17	<b>went [8]</b> 70/9
204/3 217/2 226/16	200/23 207/21	99/23 102/14 103/5
231/4 232/3 232/5	<b>weapons [2]</b> 98/19	121/4 159/16 182/1
238/17 238/18	98/23	215/17

<b>W</b>	177/6 178/12	225/11 230/14
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 141 of 254	178/14 178/16	232/22
<b>were [164]</b> 14/21	178/19 178/20	<b>whatever [16]</b> 3/12
14/22 21/20 33/22	179/1 179/10	4/24 7/20 69/8
35/4 35/6 35/11	179/20 179/20	69/19 144/9 155/23
41/21 44/14 44/17	179/22 180/2 180/4	155/24 156/15
49/16 49/17 49/19	180/9 181/6 181/13	156/15 158/6
50/8 50/18 50/20	185/24 186/2 186/2	159/10 160/10
50/21 50/23 52/19	191/9 193/10 194/9	162/22 179/21
52/23 54/20 55/6	194/15 194/16	200/12
58/4 65/2 68/12	195/6 195/10	<b>when [77]</b> 4/6
68/17 73/14 73/25	196/13 196/24	14/12 21/6 29/23
74/19 76/2 82/15	197/11 200/8	30/20 35/6 38/10
82/18 84/18 85/16	200/10 200/12	44/14 53/22 58/4
86/10 86/10 86/20	200/14 200/17	64/8 65/25 66/1
91/13 91/23 91/25	201/12 202/14	67/6 67/10 69/20
92/2 96/21 98/22	203/10 204/23	70/1 71/19 78/2
99/20 103/3 108/20	204/23 205/23	84/13 86/20 98/3
108/21 109/23	206/4 208/25 209/1	109/19 109/23
110/22 110/22	209/3 209/10	113/5 115/12 118/4
110/23 111/2 118/4	210/16 224/19	118/11 118/11
119/11 119/14	229/24 230/3 230/6	118/12 128/10
124/5 124/17	230/12 232/10	134/15 136/12
130/15 130/18	232/12 232/12	141/9 143/19
130/25 131/1	233/22 234/5	144/23 150/6
133/19 135/9	234/13 236/1 236/3	153/25 154/2 154/4
135/12 136/22	236/4 243/10	159/16 159/21
138/14 138/17	<b>weren't [6]</b> 6/7	160/13 160/15
143/8 143/12 145/5	32/11 111/12	173/1 173/13
148/9 148/11	113/25 146/14	173/20 181/24
148/24 152/18	200/23	182/10 183/16
153/3 153/3 154/3	<b>WEST [1]</b> 1/2	184/6 191/8 191/25
154/3 154/4 155/22	<b>whack [1]</b> 5/7	195/10 205/13
155/23 156/8	<b>what [253]</b>	206/5 208/25 209/3
156/19 156/19	<b>what's [27]</b> 4/8	209/9 210/16
157/20 157/25	24/14 26/15 27/18	216/20 217/6
159/7 159/13	28/17 42/22 58/25	219/24 220/1
159/17 161/6	61/5 63/2 75/16	221/13 222/18
163/21 163/25	78/16 83/20 97/3	222/22 223/24
164/1 165/3 166/17	114/9 119/11	224/19 224/21
169/18 174/18	132/12 134/16	227/8 228/23
174/20 174/24	150/22 151/23	232/10 234/5
175/2 175/12	158/22 164/21	235/25 240/15
175/21 176/10	207/1 214/15 215/9	240/24



<b>W</b>	140/18 140/21	241/16
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/22 Page: 142 of 254	142/11 142/17	<b>while</b> [6] 67/5
<b>whenever</b> [2] 69/19	144/17 148/15	165/2 216/21
120/23	148/21 152/23	219/18 235/13
<b>where</b> [56] 5/5	162/15 162/18	240/3
12/6 15/12 15/22	162/23 175/2	<b>whiteboard</b> [1]
17/10 17/11 34/11	175/11 175/17	227/5
36/23 69/15 71/16	177/5 177/6 178/19	<b>whitepaper</b> [6]
74/8 94/16 98/6	180/3 180/20	200/17 217/7
115/9 115/13	180/24 182/13	220/23 226/5 226/7
115/23 116/13	186/11 191/1	226/23
117/17 118/4	197/14 197/15	<b>who</b> [46] 6/10 15/6
118/17 118/18	198/3 198/10	21/8 29/1 29/20
118/19 119/23	198/25 200/8 200/9	29/21 31/1 31/3
120/4 120/5 125/3	204/23 205/7	31/15 31/16 52/12
132/16 133/23	206/11 207/3	55/24 67/9 69/23
138/11 139/23	208/12 211/21	69/24 69/25 71/15
140/1 140/2 142/11	214/24 234/20	104/16 104/18
142/12 142/14	236/1 236/4 238/21	107/5 107/9 109/4
143/12 143/13	238/24	109/7 110/16
144/20 152/5	<b>which</b> [61] 9/23	110/20 111/4
164/11 171/3 177/5	10/4 10/12 18/21	113/18 133/16
179/5 182/4 201/6	18/22 22/18 28/20	134/23 138/14
215/22 216/5 219/3	31/10 31/17 33/4	138/17 143/7
220/12 225/15	40/6 40/10 44/4	154/13 163/23
227/20 228/2 231/9	54/3 57/3 60/23	174/15 186/19
237/4 241/19	62/8 62/14 65/11	204/24 205/4 205/8
241/22	67/5 68/13 72/6	205/9 208/22
<b>whereas</b> [3] 62/5	75/19 76/12 77/18	208/22 211/7
65/8 233/17	79/19 80/25 81/19	231/23 235/11
<b>WHEREOF</b> [1] 244/14	85/8 85/14 86/13	242/3
<b>wherever</b> [2]	88/5 90/11 91/13	<b>who's</b> [3] 135/1
115/24 144/14	110/14 118/21	135/5 151/9
<b>whether</b> [69] 7/18	119/12 134/5 147/1	<b>WhoIs</b> [1] 138/8
9/8 9/10 10/5 11/6	151/8 160/12 161/5	<b>whose</b> [2] 113/17
35/25 40/17 45/6	179/19 181/22	130/15
69/14 81/22 93/5	188/15 196/12	<b>why</b> [27] 3/18
97/15 104/9 104/24	206/2 207/21	11/25 16/23 20/2
106/20 106/21	207/24 208/1	21/16 25/3 39/18
107/2 110/9 110/14	208/16 217/7	54/14 59/10 62/1
116/17 121/5	217/10 217/13	62/2 62/12 67/23
123/15 125/19	217/15 228/21	68/18 70/23 72/8
125/20 129/6	229/9 231/11	116/8 123/23 125/3
140/13 140/16	231/15 234/2	139/15 146/8 157/2



<b>W</b>	157/23 175/18	114/25 115/9
<b>why... [5]</b> 168/3	176/8 176/12	115/16 115/24
219/14 232/18	177/13 179/18	116/13 139/23
232/18 241/17	198/14 200/21	139/24 140/1 140/4
<b>Wi [1]</b> 181/25	218/7 219/3 239/14	140/16 140/19
<b>Wi-Fi [1]</b> 181/25	<b>without [12]</b> 12/14	141/5 141/17
<b>widely [2]</b> 101/8	68/15 83/25 124/10	207/13 207/15
223/22	135/3 166/3 167/1	207/22
<b>will [62]</b> 6/16	182/2 203/8 217/19	<b>word [28]</b> 3/15
12/1 13/2 19/18	221/22 231/14	3/22 4/1 4/2 4/4
19/20 21/8 21/9	<b>witness [56]</b> 12/12	4/12 4/22 5/1 6/2
25/17 29/16 29/23	13/2 14/11 50/12	7/7 7/10 8/1 51/25
32/23 36/14 37/8	51/4 52/1 52/9	67/7 71/12 71/19
45/21 46/6 46/7	54/14 62/20 67/12	93/23 105/24 106/2
46/8 46/10 46/15	67/16 68/24 70/11	134/19 134/20
49/5 50/14 66/16	74/14 82/24 99/15	134/24 140/8 173/1
67/16 67/17 69/23	119/6 131/15	173/17 173/18
70/7 70/14 82/8	142/17 146/8 147/7	183/17 183/25
82/9 82/10 122/2	152/7 157/1 157/17	<b>words [12]</b> 5/13
122/8 123/2 123/4	166/24 167/7 167/8	7/22 68/12 106/14
125/13 125/17	168/21 169/12	120/1 120/13 139/4
130/17 132/16	181/3 182/20	173/5 180/12 184/1
138/22 138/23	182/24 185/16	184/4 196/18
188/4 195/9 196/13	186/23 191/24	<b>work [31]</b> 11/5
197/2 202/2 205/8	192/10 196/1 210/9	14/20 29/18 96/18
212/11 212/20	213/11 213/12	96/23 97/1 97/2
213/17 214/21	213/23 214/5 215/6	97/8 102/23 102/25
218/14 239/7 239/8	220/25 224/9 225/6	103/19 123/23
240/1 240/5 240/6	225/7 225/12 227/7	125/12 132/11
240/15 240/18	229/4 229/7 236/8	142/9 144/11
241/22 242/14	240/6 240/11 242/3	157/17 157/24
242/15 243/6	244/14	159/21 160/11
<b>Wilson [3]</b> 82/13	<b>witness's [1]</b>	176/4 215/5 215/12
140/18 142/18	197/1	215/21 216/3 217/9
<b>windows [3]</b> 29/3	<b>witnesses [13]</b>	225/5 234/6 234/8
89/16 238/17	13/11 67/13 69/21	234/22 238/20
<b>wireless [1]</b> 93/16	69/23 69/24 70/20	<b>worked [8]</b> 98/9
<b>wish [2]</b> 74/24	71/4 73/9 73/19	99/25 102/15
240/3	241/20 242/6 242/7	201/18 216/25
<b>withdrawn [1]</b> 52/7	242/10	232/7 234/20
<b>within [18]</b> 20/10	<b>woke [2]</b> 4/18 6/1	235/12
42/11 76/13 83/4	<b>won't [2]</b> 96/14	<b>working [7]</b> 16/3
89/23 92/20 154/18	97/2	103/15 216/3
	<b>Woolloowin [16]</b>	219/18 219/24

<b>W</b>	126/5 126/9 126/11	213/22 217/23
USCA11 Case: 22-11150 Document: 53-13 Date Filed: 11/30/2022 Page: 144 of 254	127/1 127/7 127/7	218/25 219/1
<b>working...</b> [2]	127/10 127/12	220/22 225/4 228/5
222/18 223/25	127/13 127/19	229/8 229/9 230/16
<b>works</b> [11] 94/16	128/11 129/20	231/9 235/17 236/7
97/7 97/10 137/11	129/21 130/3 130/5	238/11 240/7
138/3 143/11 160/7	130/9 130/22	240/12 240/21
207/17 217/2 218/2	130/24 131/2 131/4	241/12 241/13
231/12	131/5 131/8 133/2	242/21 242/22
<b>workspace</b> [1]	133/15 133/18	243/8 243/9 243/11
152/4	133/21 134/9 134/9	243/18
<b>world</b> [3] 67/15	134/12 134/24	<b>wouldn't</b> [11]
127/24 229/24	135/7 135/18	102/11 127/6
<b>worried</b> [1] 173/13	135/25 137/24	128/13 128/16
<b>worse</b> [1] 46/17	139/16 141/2	128/22 129/22
<b>would</b> [207] 4/16	143/12 143/13	135/1 135/5 135/11
4/17 8/15 8/18	143/15 143/17	152/22 178/25
11/13 11/14 12/16	143/19 143/25	<b>WRIGHT</b> [109] 1/7
12/17 12/21 13/4	144/1 144/5 145/3	15/18 17/4 19/9
13/6 13/7 18/13	148/18 149/19	22/17 22/19 25/1
24/5 49/2 49/7	151/20 152/25	25/13 27/8 28/1
49/9 52/10 62/10	157/3 159/15	28/4 32/11 41/16
63/25 65/7 65/12	160/24 161/10	41/16 50/4 54/11
66/18 69/7 69/7	168/3 168/12 169/2	54/20 55/3 55/16
69/18 70/18 72/5	169/17 169/20	56/1 58/5 58/12
73/1 86/6 86/8	170/21 170/23	66/10 67/8 67/14
94/12 94/15 94/22	170/25 172/22	67/19 68/9 69/2
94/23 94/24 94/25	173/11 173/25	69/4 69/18 71/7
95/7 95/9 95/9	174/1 174/9 179/1	71/14 73/6 81/1
95/9 95/12 95/13	179/7 181/8 181/20	86/9 86/18 86/20
95/19 95/20 95/23	182/15 184/10	87/12 87/14 87/19
96/8 97/3 97/7	187/14 187/15	93/6 101/13 104/7
97/10 98/4 98/18	187/25 188/16	104/25 106/21
98/22 99/17 102/12	189/13 189/21	107/9 109/9 109/24
103/5 108/6 109/6	190/9 192/3 192/5	109/25 111/1
109/11 109/14	192/5 192/6 192/8	115/13 115/25
109/18 110/2 110/5	193/2 193/11	116/14 125/24
110/8 110/17	193/12 193/23	130/11 130/19
113/19 117/11	194/8 194/9 194/17	131/1 131/2 135/18
119/24 120/2 120/4	195/8 195/20	136/4 136/11
120/4 120/14	197/21 197/23	136/16 136/22
120/15 120/18	199/22 201/5 201/5	140/21 141/20
120/18 122/19	206/7 208/2 209/4	141/24 142/10
124/3 125/3 126/2	212/5 213/20	142/12 148/9

<b>W</b>	232/4	100/22 101/13
USCA11 Case: 22-11150 Document: 53-18 Date Filed: 11/30/2022 Page: 445 of 254	wrong [6] 89/25	101/18 102/5
<b>WRIGHT... [40]</b>	112/10 165/15	103/21 104/4 104/9
148/16 149/8	172/23 176/23	105/3 105/3 106/20
149/15 151/1 151/8	187/17	106/24 108/11
151/9 154/11	<b>wrote [4]</b> 43/24	108/24 109/15
154/17 154/21	159/13 220/19	114/18 117/20
161/18 161/19	232/21	118/23 120/8
161/21 161/25		120/10 124/1
164/1 165/11	<b>Y</b>	124/13 129/12
175/12 175/13	<b>yeah [16]</b> 6/17	129/14 130/11
178/13 178/23	13/9 15/4 15/4	134/5 137/10 140/7
179/23 179/25	22/14 51/7 54/15	143/15 143/20
190/6 195/20	62/22 98/2 108/16	145/23 146/25
197/15 197/16	112/5 113/17	148/8 148/9 151/12
197/24 198/12	120/13 133/21	153/21 154/20
200/19 202/9 203/2	169/24 197/21	157/17 160/5
203/3 203/18	<b>year [5]</b> 6/3 12/16	160/11 162/15
204/24 205/4	17/5 84/17 153/15	168/9 170/21 171/1
206/23 207/3	<b>years [2]</b> 127/20	171/22 173/12
208/25 210/17	173/6	173/12 173/15
211/14 214/25	<b>Yep [2]</b> 24/11	174/3 176/5 176/14
<b>Wright's [20]</b>	195/9	177/6 179/4 180/15
21/20 52/15 58/4	<b>yes [263]</b>	181/9 181/22
71/3 82/16 106/24	<b>yesterday [11]</b>	182/11 195/17
131/6 136/12	3/23 6/6 7/7 7/8	199/16 200/1
136/21 138/14	15/12 15/22 39/17	211/10 212/2
148/13 151/13	88/1 91/20 91/22	217/12 222/7 233/9
154/10 155/1 155/5	104/1	238/19 239/11
163/22 175/6	<b>yet [8]</b> 41/12	239/12
179/11 179/12	59/22 66/4 70/6	<b>you've [14]</b> 10/19
189/25	74/20 183/7 203/9	73/13 92/19 96/1
<b>write [10]</b> 21/13	241/4	103/17 103/21
65/8 159/3 220/17	<b>you [1238]</b>	105/9 105/14 106/4
225/12 225/16	<b>you where [1]</b>	106/11 157/21
226/14 232/18	120/4	170/11 188/9 203/5
235/17 235/19	<b>you'll [9]</b> 14/20	<b>your [317]</b>
<b>writing [8]</b> 203/3	66/25 74/13 146/7	<b>yours [2]</b> 21/11
220/23 224/9	153/6 212/1 214/3	23/8
225/14 232/22	239/9 241/7	<b>yourself [2]</b> 42/24
233/18 235/16	<b>you're [76]</b> 5/10	147/21
240/22	7/25 70/16 80/6	<b>yvette [6]</b> 1/23
<b>written [5]</b> 21/3	93/5 93/21 94/10	1/25 244/5 244/17
92/6 212/3 222/2	95/21 100/13	244/17 244/19

**Z**

USCA11 Case: 22-11150

Document: 53-13

Date Filed: 11/30/2022

Page: 146 of 254

**ZACK** [1] 1/16**ZALMAN** [1] 1/20**zero** [1] 231/8**zone** [12] 27/6

39/15 61/3 61/23

63/2 63/2 63/18

79/11 89/7 128/20

129/15 145/10

**zones** [4] 39/20

125/24 126/3 145/7

**Zoom** [10] 12/23

13/8 13/13 14/12

239/24 240/2 240/5

240/7 240/9 240/15

**847**

IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF FLORIDA  
WEST PALM BEACH DIVISION  
CASE NO. 9:18-cv-80176-BB

IRA KLEIMAN, as the personal representative  
of the Estate of David Kleiman, and W&K Info  
Defense Research, LLC,

Plaintiffs,

November 17, 2021  
9:58 a.m.

vs.

CRAIG WRIGHT,

Defendant.

Pages 1 THROUGH 148

---

TRANSCRIPT OF TRIAL DAY 11  
BEFORE THE HONORABLE BETH BLOOM  
UNITED STATES DISTRICT JUDGE  
And a Jury of 10

Appearances:

FOR THE PLAINTIFF: ROCHE FREEDMAN, LLP  
DEVIN FREEDMAN, ESQ.  
KYLE ROCHE, ESQ.  
200 South Biscayne, Suite 5500  
Miami, Florida 33131

BOIES SCHILLER & FLEXNER  
ANDREW BRENNER, ESQ.  
STEPHEN N. ZACK, ESQ.  
100 Southeast 2nd Street, Suite 2800  
Miami, Florida 33131

FOR THE DEFENDANT: RIVERO MESTRE, LLP  
ANDRES RIVERO, ESQ.  
JORGE MESTRE, ESQ.  
AMANDA M. MCGOVERN, ESQ.  
ZALMAN KASS, ESQ.  
MICHAEL A. FERNANDEZ, ESQ.  
2525 Ponce de Leon Boulevard, Suite 1000  
Coral Gables, Florida 33134

COURT REPORTER: Yvette Hernandez  
U.S. District Court  
400 North Miami Avenue, Room 10-2  
Miami, Florida 33128  
yvette\_hernandez@flsd.uscourts.gov

**I N D E X**

Certificate..... 148

**W I T N E S S****ON BEHALF OF THE DEFENDANT:**

PAGE

KEVIN MADURA

CONTINUED DIRECT EXAMINATION BY MR. KASS

11

CROSS-EXAMINATION BY MR. FREEDMAN

36

REDIRECT EXAMINATION BY MR. KASS

68

NICHOLAS CHAMBERS

DIRECT EXAMINATION BY MR. FERNANDEZ

82

CROSS-EXAMINATION BY MR. ROCHE

107

REDIRECT EXAMINATION BY MR. FERNANDEZ

119

LYNN WRIGHT

(via video deposition)

123

DONALD LYNAM

(via video deposition)

124 &amp; 125

DR. DUGALD STEWART MACINTYRE

DIRECT EXAMINATION BY MR. KASS

126

**E X H I B I T S****EX. NO.:**

OFFERED ADMITTED

Defendant's 91

132

132

Defendant's 93-102

133

134

Defendant's 1020

135

135

Defendant's 1021.1

137

137



1 (Call to order of the Court, 9:58 a.m.)

2 THE COURT: Hi. Good morning to everyone. Is there  
3 anything we need to address before we proceed?

4 MR. FREEDMAN: Your Honor -- good morning, Your Honor.  
5 Plaintiffs have two things we'd like to raise. One is --

6 THE COURT: All right. Go ahead and have a seat,  
7 then.

8 MR. FREEDMAN: One is, Your Honor, you asked about a  
9 deadline to respond to the JMOL motion that was filed yesterday  
10 and Plaintiffs would like to know if it's all right for the  
11 Court if we respond on Monday.

12 THE COURT: Let me first state that by the Court's  
13 notification that I had received the motion filed by the  
14 Defendant, I did not want to represent that the Defendant had  
15 exceeded the local rules in terms of the page limit. It was  
16 properly 20 pages, plus the three pages, which is a total of  
17 23, not 26. So if I made that representation, that was in  
18 error and I apologize.

19 With regard to the response, I would ask that the  
20 response be filed by the end of business tomorrow. And the  
21 reason I state that is that I believe that it's proper for the  
22 Court to rule on this motion prior to the case being over. And  
23 I anticipate, unless you tell me otherwise, that we should have  
24 this case to the jury, as I had hoped we would -- which would  
25 be most likely on Monday or Tuesday; am I correct?

1 MR. FREEDMAN: Your Honor, one moment.

2 (Pause in proceedings.)

3 MR. FREEDMAN: So, Your Honor, two things. If the  
4 Court orders it to be filed by the end of the day tomorrow, we  
5 will do so. I do not see -- looking at the witnesses that  
6 Defendant has disclosed to us, I do not see any possibility for  
7 this case closing before Thanksgiving.

8 THE COURT: Let's talk about the schedule, then.  
9 Because I think in fairness to the jury, if it's not going to  
10 be finished by the 22nd, then we do need to work with them on  
11 additional days.

12 MS. MCGOVERN: Your Honor, the schedule is as follows.  
13 We have -- including the witness who is testifying right now,  
14 we have 11 witnesses, but that also includes two videos. One  
15 video is 50 minutes, approximately. The other video is about  
16 40 minutes, approximately.

17 We have tried to -- and we've gone over and over what  
18 we think we need in order to get through the witnesses. And as  
19 Mr. Rivero said yesterday, we are striving to get there by  
20 Tuesday. But as Mr. Freedman properly acknowledges, it's not  
21 going to be easy to do that.

22 So, in an abundance of caution, I would say I would  
23 hate to make a representation that we'll make it on Tuesday and  
24 then disappoint the Court and the jury if we can't.

25 MR. FREEDMAN: Your Honor, our assessment is there's

1 virtually no way it finishes before Thanksgiving if all of  
2 these witnesses are, indeed, called. We just don't -- we've  
3 played it out schedule-wise with the amount of time in court  
4 and the amount of time it would take to examine them on direct  
5 and cross based on the directs and crosses that have taken  
6 place. And, I mean, no one would be happier than me to be able  
7 to be done and spend Thanksgiving with the family without  
8 worrying about trial, but our realistic assessment is it's  
9 simply not -- it's not feasible.

10 THE COURT: Well, why don't we look at -- today,  
11 obviously we're finishing with Mr. Madura. And do you believe  
12 that we'll get to some other witnesses today?

13 MS. MCGOVERN: Yes, we do, Your Honor. We have  
14 Mr. Chambers who will be ready immediately. All of our  
15 witnesses are lined up to begin immediately upon the conclusion  
16 of the prior witness. I understand Mr. Freedman's concern. We  
17 share it. In all honesty, we share it.

18 And part of it is, Your Honor, is because when I'm  
19 mapping out and we're mapping out the time schedules, we're  
20 anticipating cross. We have absolutely no idea. It's out of  
21 our control.

22 THE COURT: Right. You're in the best position to  
23 know your direct and cross-examination. I looked at the  
24 witnesses, but I didn't anticipate that there would be that  
25 length of time with regard to each witness.

1 All right. Let's see where we are by Friday morning,  
2 and then we'll have a conversation with the jurors and we'll  
3 look at our schedules and see what time we can devote and how  
4 much more time is necessary.

5 MR. FREEDMAN: Your Honor, we have one other issue to  
6 raise.

7 THE COURT: Yes, sir.

8 MR. FREEDMAN: Which is it was brought to my attention  
9 that previous to the Slack message we raised with the Court  
10 yesterday about Dr. Edman, there had been a previous posting by  
11 Dr. Wright talking about Jamie Wilson, the bald Australian man  
12 that testified by video deposition. And the quote is: "Jamie  
13 was" -- and this is before trial started: "Jamie was put on  
14 notice a few weeks before his testimony. We are planning to  
15 sue him for fraud."

16 Your Honor asked the Plaintiffs yesterday if -- what  
17 remedy we would seek. And at this point, Your Honor, in  
18 addition to the admonishment you gave yesterday, we would seek  
19 to be able to add these two Slack messages to our exhibit list  
20 and be able to cross-examine Dr. Wright on these actions.

21 THE COURT: Response?

22 MS. McGOVERN: Your Honor, Mr. Freedman shared the  
23 post with me this morning regarding Jaime Wilson, and I haven't  
24 had an opportunity to do some due diligence with respect to the  
25 circumstances.

1 Out of context, it sounds exactly as stated. The  
2 context of the quote, however, is -- refers to actually a  
3 dispute that took place long before the testimony. And if  
4 you -- the intention of the statement was there is a dispute  
5 between these two individuals because there is a patent action  
6 against Mr. Wilson for fraudulently representing the patent to  
7 be his and his alone.

8 So the reference is with respect to an action that  
9 they have. It isn't linked to -- it sounds like it. But  
10 again, it's these things that are just cherrypicked and taken  
11 out of context. It's a statement that Jamie Wilson was advised  
12 that this dispute is going to take place. And the belief is,  
13 by Dr. Wright, that that's, in fact, why he's testifying the  
14 way he is, because the dispute is ongoing with respect to the  
15 patent that was -- that is Bitcoin related and that was filed  
16 but only in Jamie Wilson's name, forging Dr. Wright's  
17 signature, and which the Plaintiffs apparently are sort of  
18 carving out of this litigation. It was never intended to  
19 suggest and doesn't suggest what it appears to suggest.

20 I will say, Your Honor, it was before your  
21 admonishment yesterday. Apparently, there is an effort to comb  
22 through the social media in the case, in what really was or is  
23 a private communication platform that you need access to.

24 There's testimony in this case in deposition that you  
25 need credentials to get in there, and that there was a hacking

1 involved in order to do it. We are actually a bit baffled as  
2 to how the Plaintiffs have access to this private --

3 THE COURT: Well, but be that as it may, by your  
4 response, it appears that you have no objection to the use of  
5 it at the appropriate time during cross-examination. You're  
6 just merely stating that there's an explanation for whatever  
7 statement Dr. Wright may have made on this site.

8 MS. McGOVERN: Your Honor, that's -- the second part  
9 of the statement, we agree with. I will say, however, two  
10 things, if I might: One, this social media cyberware situation  
11 is being represented to the Court as being one-sided.

12 Yesterday evening -- in fact, I had a conversation  
13 with Mr. Brenner about it. I have not had a chance to talk to  
14 Mr. Freedman. Last night, Mr. Freedman tweeted all over social  
15 media statements belittling Dr. Wright's testimony in this  
16 case. It has created tremendous angst on our side of the table  
17 because what we're trying to do is we're actually trying to do  
18 things in this case that is efficient for the Court and for the  
19 jury and things like that are not helping.

20 It was a belittling statement, laughing at him and  
21 laughing at his testimony and asking the person who was  
22 belittling him to show up in court. I've spoken to  
23 Mr. Brenner. I've asked for those statements to stop because  
24 it's not helpful in this case. So --

25 THE COURT: I don't want to spend more time than is

1 necessary. Mr. Freedman, is that what you're doing, sir, is  
2 being involved in --

3 MR. FREEDMAN: No, Your Honor. That's not true.

4 First of all, let me say, as the Court has said  
5 before, there's no gag order on this case, and the actions of  
6 counsel to advance their client's interests are not subject to  
7 comment by opposing counsel.

8 That being said, Your Honor -- and we have no problem  
9 with Dr. Wright talking about the case. That's his  
10 prerogative. It's when he intimidates witnesses, which is an  
11 issue.

12 That being said, Your Honor, so the record is clear,  
13 my tweet last night said: "Kleiman v. Wright update.  
14 Plaintiffs have rested. It's been a long ride but a pleasure  
15 working with @kylerocher and @andrewbrenner. Thanks also for  
16 the help and effort from this great crypto community, including  
17 @mylegacykid. All your efforts are noticed and appreciated."  
18 And the specific quote that Ms. McGovern --

19 MS. MCGOVERN: That's not the quote.

20 THE COURT: That's not the quote?

21 All right. Let me say that it may make sense to focus  
22 your time on: "Let's get the response to the motion." And at  
23 this point in time, I'm not going to be involved in monitoring  
24 the public or private messages that are made by counsel.

25 MS. MCGOVERN: Your Honor, the only thing I'd like to



1 say, if I could, is that wasn't the quote. I would just like  
2 the record -- I'd like to have an opportunity -- you are  
3 interrupting me, Mr. Freedman.

4 THE COURT: Ms. McGovern, why don't you read the  
5 quote.

6 MS. MCGOVERN: I'd like to read the quote into the  
7 record, please. And the reason for that is because it's  
8 just -- actually, it's at a point where it's just not fair. It  
9 specifically says -- there's a crypto message that compares --  
10 that Dr. Wright -- comparing himself to Elan, claiming that  
11 W -- Bitcoin W -- WP released in March, referring to the  
12 Bitcoin being purchased and referring to Craig being a fake  
13 Satoshi.

14 And then Mr. Freedman writes: "Ha. Make sure you  
15 introduce yourself on Monday." This is a belittling statement  
16 of counsel. I would never have brought this to Your Honor's  
17 attention, except that the representations to the Court I think  
18 need to be complete so that the record is complete.

19 MR. FREEDMAN: Your Honor, if I may just respond?

20 First of all, even if that were, in fact, an accurate  
21 representation of the tweet, I still stand by there was nothing  
22 wrong with that from counsel.

23 Second of all, Your Honor, the tweet that I  
24 actually -- it was from an observer of the trial who tweeted --  
25 I don't know -- 20 messages about the cross-examination with

1 humor, including I believe at one point saying something about  
2 how I said something like Zeus or something silly --

3 THE COURT: And once again, in this age of electronic  
4 communication, I am not going to be the monitor of the  
5 messages, either public or private, unless it has an effect on  
6 this jury and it affects the integrity and the progress of this  
7 trial.

8 So, at this point in time, thank you for bringing it  
9 to the Court's attention. Let's bring in the jury.

10 And if we can have Mr. Madura come forward, please.  
11 (Before the Jury, 10:09 a.m.)

12 THE COURT: Good morning, Ladies and Gentlemen.  
13 Please be seated, everyone. It's good to see each of you.

14 Once again, I apologize for the delay. The fault is  
15 all mine. We are ready to proceed.

16 Mr. Madura, let me remind you, you were previously  
17 placed under oath. And let us proceed with the questioning.

18 DIRECT EXAMINATION [CONTINUED]

19 BY MR. KASS:

20 Q. Good morning, Mr. Madura.

21 A. Good morning.

22 Q. Could you explain to the jury what are the important  
23 concepts that are central to how Bitcoin operates?

24 A. Bitcoin incorporates a variety of concepts from many  
25 different fields, most notably from computer science, game

1 theory, accounting, and statistics.

2 Q. And could you elaborate a little bit how game theory is  
3 part of the Bitcoin protocol and software?

4 MR. FREEDMAN: Objection, Your Honor. Outside the  
5 scope of the expert report.

6 MR. KASS: Your Honor, that's Paragraph 18, 31 to 33,  
7 and 54.

8 THE COURT: Okay. 31 to 33.

9 MR. KASS: Yeah, 18 and 54. It contains a description  
10 of how the game theory works.

11 MR. FREEDMAN: Your Honor, the words "game theory"  
12 don't appear once in the entire report.

13 MR. KASS: Your Honor, if you would like me to respond  
14 I can. The description that are in those paragraphs is game  
15 theory. It may not say the word "game theory" but it sets out  
16 what it is.

17 THE COURT: All right. Overruled. Let's continue.

18 THE WITNESS: So an understanding of game theory is  
19 useful in that it informs how the miners interact in the  
20 system. Essentially, because miners are incentivized to  
21 support instead of attack the network, there's some game  
22 theoretical components that go into that and actually making it  
23 operational.

24 BY MR. KASS:

25 Q. Mr. Madura, could you explain how the different incentives

1 align within the Bitcoin blockchain with respect to mining?

2 A. So miners are incentivized essentially to support the  
3 network because they receive, as I mentioned yesterday, the  
4 block subsidy. Essentially, when they find a valid block, they  
5 broadcast it to the network. And if it's accepted by the  
6 network, part of that creates new Bitcoin that are then  
7 essentially sent to the miner. And because of that incentive,  
8 they are incentivized essentially to dedicate their computing  
9 power to finding new blocks and to validating transactions,  
10 instead of spending money on equipment and electricity in order  
11 to attack the network. It essentially incentivizes them to  
12 support instead of attack the network.

13 Q. Mr. Madura, could you explain to the jury how statistics is  
14 part of the Bitcoin protocol?

15 A. Statistics is an important piece of how Bitcoin works.  
16 Essentially, as part of mining, the statistical properties of  
17 the hashing algorithms essentially ensures that you don't know  
18 who the next successful miner is going to be. It's essentially  
19 everybody in the network is attempting at the same time to  
20 solve the cryptographic puzzle. And the statistical property  
21 of that is such that everybody is trying at the same time. You  
22 don't know who the next one is going to be.

23 Q. Could you explain to the jury how accounting is part of the  
24 Bitcoin protocol.

25 MR. FREEDMAN: Your Honor, objection. Outside the

1 scope of the expert report.

2 MR. KASS: Your Honor, it's Paragraph 18, 34 to 35,  
3 Paragraph 41.

4 THE COURT: Hold on. Hold on. Hold on. Because I'm  
5 now in the report. Is there a report after April 10th, 2020?

6 MR. KASS: No. That is the last one, Your Honor.

7 THE COURT: All right. So I'm in the report. So  
8 please provide the page.

9 MR. KASS: Sure. Well, I have it by paragraph. It's  
10 Paragraph 18.

11 MR. FREEDMAN: Your Honor, I'm showing Paragraph 18 as  
12 a list of Dave Kleiman's publications.

13 THE COURT: Right. That's Dave Kleiman's  
14 publications.

15 MR. KASS: Your Honor, there's two reports.

16 THE COURT: Well, that's what I asked. Is this the  
17 right report?

18 MR. KASS: No. I'm sorry. It is a report dated April  
19 17th, 2020.

20 THE COURT: April 17th?

21 MR. KASS: Yes. It's a rebuttal report of --

22 THE COURT: All right. I have the expert report on  
23 April 10th. You're saying that there's another one from April  
24 17th?

25 MR. KASS: Yes.

1 THE COURT: Can you give me the ECF number or the  
2 exhibit number, please?

3 MR. KASS: Give me one moment, Your Honor.

4 (Pause in proceedings.)

5 MR. KASS: Your Honor, we're working on that. If it  
6 would help, I don't mind giving Your Honor my paper copy.

7 THE COURT: Well, I don't want to take your copy, but  
8 if there is a way to reference it for the Court, then I can  
9 properly rule on objections.

10 You're saying that seven days later there was another  
11 report?

12 MR. KASS: Your Honor, I do have a second copy if  
13 that's helpful.

14 THE COURT: Liz, do you mind -- that's a second  
15 report.

16 Thank you.

17 MR. FREEDMAN: Your Honor, I have that page and that  
18 paragraph. I don't see the word "game theory," "statistics,"  
19 or "accounting" in that paragraph.

20 (Pause in proceedings.)

21 THE COURT: Mr. Kass, where would I find it?

22 MR. KASS: Sure. The line starts: "Ownership" and  
23 then it says: "The ledger is simply a mechanism for recording  
24 a set of transactions." And what Mr. Madura was going to  
25 testify is that the Bitcoin is a ledger which is a concept from

1 accounting.

2 THE COURT: All right. Let's continue. Overruled at  
3 this point.

4 BY MR. KASS:

5 Q. Mr. Madura, can you please explain to the jury how  
6 accounting is part of the Bitcoin protocol.

7 A. So really what Bitcoin is, at the end of the day, is a  
8 globally distributed ledger, right? It keeps track of  
9 transactions that are occurring on the network. And so I don't  
10 know if you have taken an accounting class before, but  
11 essentially a ledger is just that, is a record of transactions  
12 between individuals.

13 And Bitcoin essentially creates a distributed ledger that  
14 no one is able to tamper with. And that's really one of the  
15 novel breakthroughs of the Bitcoin system, is that it's done in  
16 such a way that you can't modify it and it solves what's called  
17 the double-spend problem. So you can't spend your money  
18 somewhere, you can't send someone Bitcoin, and then take it  
19 back and spend it somewhere else. That was another novel  
20 breakthrough of the system.

21 Q. Mr. Madura, can you please explain to the jury how the  
22 Bitcoin protocol involves math?

23 A. Yes. So mathematics is the underlying concept essentially  
24 that inform the cryptographic algorithms that are used  
25 throughout. There's also evidence in the source code of the



1 application of certain mathematical algorithms, essentially how  
2 particular Bitcoins are chosen to be spent while using the  
3 wallet software. So it's embedded within the code itself.

4 Q. Does the Bitcoin protocol involve cryptography?

5 A. It does, yes.

6 Q. And what type of cryptography does it involve?

7 A. The Bitcoin software incorporates what we call a coding  
8 library. So this is prepackaged code that was developed. I  
9 believe it was an open source package. And it uses just a  
10 subset of that package for its hashing algorithms, for its  
11 signing algorithms. And so there was no new cryptography  
12 essentially introduced, but it does utilize some well-known  
13 cryptographic components.

14 Q. Does the Bitcoin blockchain involve coding?

15 A. It does, yes. So the Bitcoin software itself is a program  
16 that was coded by a developer. And as I mentioned yesterday, a  
17 fairly sophisticated C++ developer.

18 Q. How many lines of code is the Bitcoin blockchain?

19 A. The original version was approximately 15,000 lines of  
20 code, somewhere around there.

21 Q. And what language was it coded in?

22 A. It was coded in C++.

23 Q. Mr. Madura, I want to move on to a new subject about  
24 transacting on the Bitcoin blockchain. How does someone  
25 transact on the Bitcoin blockchain?

1 A. So when you create a transaction in Bitcoin, essentially  
2 what you need is your private key. You essentially construct a  
3 transaction. Say you want to send five Bitcoin to my mother.  
4 I would say: "Okay. I want to create a transaction saying I  
5 want to spend five Bitcoin to this address essentially."

6 I would then use my private key to create a signature,  
7 essentially putting a stamp of approval on it, saying: "Yes.  
8 I authorize this Bitcoin to be sent." And then I basically  
9 broadcast to the network, tell everyone I'm sending this  
10 Bitcoin and the transactions are accepted by miners and  
11 validated, added to a block, and the transaction is considered  
12 complete.

13 Q. Could you explain a little bit more to the jury physically  
14 what are these private keys.

15 A. So depending on the format, a private key at the end of the  
16 day is really just a really long number, but it can be stored  
17 in a variety of ways. You can encode it. You can compress it.  
18 So it's anywhere from maybe 40 to 80 characters long  
19 essentially.

20 Q. How are Bitcoin private keys stored?

21 A. So Bitcoin private keys are data. It's just, as I  
22 mentioned, a string of characters. And so it could be stored  
23 much as you would store a photo file or a Word document; it can  
24 be stored in the same type of electronic media like a computer  
25 hard disk, for example.

1 MR. KASS: I would like to know if we could pull up  
2 Exhibit D425.

3 BY MR. KASS:

4 Q. Mr. Madura, do you see the devices that are on the board  
5 over here?

6 A. I do, yes.

7 Q. And do you also see devices on your screen?

8 A. I do, yes.

9 MR. KASS: And if we could go to the second page also  
10 of the exhibit, D425.

11 BY MR. KASS:

12 Q. Mr. Madura, how many of these devices are capable of  
13 storing Bitcoin private keys?

14 A. It would appear all of them are some type of digital  
15 storage media.

16 Q. Are there any that are in particular more suitable for  
17 storing Bitcoin private keys?

18 MR. FREEDMAN: Objection, Your Honor. Outside the  
19 scope of this witness's expert report.

20 MR. KASS: If you'll give me a moment, Your Honor.

21 THE COURT: All right. Certainly.

22 MR. KASS: Okay. I am referring to Paragraph 19 --  
23 no -- 19 of the report and also 140.

24 MR. FREEDMAN: Which report?

25 MR. KASS: Again, it's going to be Mr. Madura's

1 rebuttal report.

2 MR. FREEDMAN: Can you restate which paragraph?

3 MR. KASS: Sure. Paragraph 19 and Paragraph 140.

4 THE COURT: Overruled. I'll allow it.

5 THE WITNESS: Could you repeat the question? Sorry.

6 MR. KASS: Sure.

7 Madam Court Reporter, could you repeat the question?

8 (Read back.)

9 THE WITNESS: So all of them are capable of storing  
10 Bitcoin private keys. But because it's a sensitive piece of  
11 data, right, it controls your Bitcoin, typically you want to  
12 use something that's a little bit more ruggedized that can  
13 withstand potentially water damage or some type of corruption.  
14 So I would think the devices on the top left appear to be some  
15 type of rubberized or ruggedized storage device.

16 BY MR. KASS:

17 Q. Is portability also a factor that someone would consider  
18 for their storing of private keys?

19 MR. FREEDMAN: Could you repeat the question? I'm  
20 sorry.

21 BY MR. KASS:

22 Q. Is portability also a factor that one would consider when  
23 storing their private keys?

24 MR. FREEDMAN: Again, Your Honor, same objection.

25 THE COURT: The objection is sustained.

1 MR. KASS: Your Honor, could I show a reference to the  
2 report?

3 THE COURT: You can reference the report, but this  
4 appears to be speculation as to what one would consider more  
5 preferable than another. Let's continue.

6 MR. KASS: Okay.

7 BY MR. KASS:

8 Q. Mr. Madura, as a Bitcoin expert, are you familiar with the  
9 different ways of storing Bitcoin private keys?

10 A. I am, yes.

11 Q. Okay. Would you have any preference for storing your  
12 private keys on a certain type of device?

13 MR. FREEDMAN: Objection. Relevance.

14 THE COURT: Sustained.

15 BY MR. KASS:

16 Q. I want to go back to talking about how to transact on the  
17 Bitcoin network. When you make a transaction on the Bitcoin  
18 network, is it visible to other participants in the network?

19 A. It is, yes. Because it's an open and distributed system,  
20 anybody can download the software. They can analyze their own  
21 version of the ledger itself. And there are also public  
22 sources, such as websites you could go onto, to view any  
23 transaction that's ever occurred on Bitcoin blockchain.

24 Q. Mr. Madura, were you here in the court when  
25 Mr. Antonopoulos testified about mining difficulty?

1 A. I was, yes.

2 Q. And did you see a graph that he had showing how the  
3 difficulty in mining changed over time?

4 A. Yes.

5 Q. When the difficulty changes with time, what's the cause of  
6 that change?

7 A. So the Bitcoin system, as additional miners come and become  
8 participants of this system, it will dynamically adjust what's  
9 called "the difficulty factor." Essentially, the more  
10 participants in the network, the more people attempting to  
11 mine, the more difficult it becomes.

12 And so the more compute power that is dedicated towards the  
13 network, again, that difficulty level will adjust dynamically.

14 Q. And do you recall seeing a demonstrative that showed a  
15 mining farm and a stand-alone computer?

16 A. I do, yes.

17 Q. Do you recall Mr. Antonopoulos testifying that one could  
18 mine Bitcoin from a wheelchair?

19 A. I remember that, yes.

20 Q. And that one can mine Bitcoin from a laptop?

21 A. Yes.

22 Q. If one started mining Bitcoin in February of 2011 on a  
23 laptop and stopped mining in April of 2013, how many Bitcoin  
24 would that person be able to mine?

25 MR. FREEDMAN: Objection, Your Honor. This is

1 undisclosed.

2 THE COURT: The basis of the objection?

3 MR. FREEDMAN: It's outside the scope of the expert  
4 report. There's no opinion on the amount of Bitcoin one could  
5 mine.

6 MR. KASS: Your Honor, Mr. Antonopoulos interjected  
7 this into the trial saying that you could mine Bitcoin on a  
8 laptop, with the implication that's what --

9 THE COURT: Okay. So --

10 MR. KASS: And so Mr. Madura is simply opining on how  
11 efficient that would be, or inefficient, and what the results  
12 of that mining would be.

13 THE COURT: The objection is sustained.

14 BY MR. KASS:

15 Q. Mr. Madura, as far as mining on a laptop goes, when did  
16 mining on a laptop become uncompetitive?

17 MR. FREEDMAN: Same objection, Your Honor.

18 MR. KASS: Your Honor, Mr. Antonopoulos directly  
19 testified on this.

20 MR. FREEDMAN: Your Honor?

21 THE COURT: When does it become uncompetitive?

22 MR. KASS: Okay. I'll rephrase the question.

23 BY MR. KASS:

24 Q. Mr. Madura, did there come a point in time when mining on a  
25 laptop was essentially -- was essentially no longer practical?



1 MR. FREEDMAN: Objection, Your Honor. This is an  
2 undisclosed expert report.

3 THE COURT: Sustained.

4 BY MR. KASS:

5 Q. Mr. Madura, if one was mining Bitcoin on a laptop, would  
6 one be able to use a laptop for anything else?

7 MR. FREEDMAN: Objection, Your Honor. Undisclosed  
8 expert opinion.

9 THE COURT: Sustained.

10 BY MR. KASS:

11 Q. Mr. Madura, do you recall Mr. Antonopoulos testifying that  
12 mining didn't require any physical activity once it was set up?

13 A. I do, yes.

14 Q. How much physical activity would be involved in setting up  
15 mining if one was trying to mine on a large scale?

16 MR. FREEDMAN: Objection, Your Honor. Undisclosed  
17 expert opinion.

18 MR. KASS: Your Honor, this is --

19 THE COURT: The objection is overruled. I'll allow  
20 that.

21 THE WITNESS: So in mining on a large scale,  
22 particularly any time after, say, 2011, because the difficulty  
23 increased fairly significantly during that time and onwards, to  
24 mine on any type of large scale you would need a large amount  
25 of specialized equipment. Essentially, at that time, what's

1 called GPUs or graphical processing units, which are just  
2 specialized computer chips essentially. You would need many,  
3 many numbers of those to mine any type of significant number of  
4 Bitcoin at the time.

5 BY MR. KASS:

6 Q. Could you explain to the jury a little bit more about what  
7 would the physical difficulty be involved in setting up such a  
8 system.

9 MR. FREEDMAN: Objection, Your Honor. Outside the  
10 scope of the disclosed expert report and Mr. Madura is not a  
11 qualified expert to opine on the physical requirements of  
12 setting up --

13 THE COURT: Sustained. I'm looking at Paragraph 60 to  
14 63, and I agree.

15 MR. KASS: Your Honor, Mr. Antonopoulos testified as  
16 to whether somebody can mine Bitcoin from a laptop and whether  
17 that involved any difficulty. Mr. Madura is a rebuttal expert.

18 THE COURT: I understand. The objection is sustained.  
19 You may continue.

20 BY MR. KASS:

21 Q. If one were to attempt to do mining on such a large scale,  
22 what would be involved in setting it up?

23 MR. FREEDMAN: Same objection.

24 THE COURT: Overruled. I'll allow that.

25 THE WITNESS: So in setting up a large-scale mining

1 operation, as we call it, you would need to have many, many --  
2 probably hundreds at the time, of those GPU units.

3 And to set it up, essentially what you would do is you  
4 would have to unpack the unit, you would have to physically  
5 plug in each of the GPUs to what we call a motherboard,  
6 essentially the kind of logic center of a computer.

7 And you would need to do this for as many GPUs as you  
8 have at the time. And so, you know, it requires you to --  
9 again, to plug them in. You would need to plug in each of the  
10 motherboards to some type of networking device so you can  
11 coordinate the different machines together. You would also  
12 need a power supply. So you would need to plug in all of these  
13 motherboards essentially into a power strip or some type of  
14 specialized power unit, for example.

15 And then such a rig of this size or scale would  
16 require some type of cooling solution as well.

17 So mining at this scale generates significant heat  
18 when the GPUs are running consistently. And so you would need  
19 some type of box fan or cooling system or some type of liquid  
20 cooling solution. And so you would need to manage all these  
21 different components together.

22 BY MR. KASS:

23 Q. Mr. Madura, once you had -- you had all the different  
24 components of this mining system, what would one need to do to  
25 make the system operational?

1 A. So after you physically plug everything in, you then need  
2 to configure each and every device. So if you figure that each  
3 mining rig, as we call it, supports anywhere from four to six  
4 GPUs at a single time, you would need to first set up all the  
5 different rigs and then you'd need to install software on them.

6 You would need to configure the mining software. You would  
7 need to somehow coordinate the different systems together so  
8 that they're all mining to the same address essentially. And  
9 then you would need to set up some type of solution to monitor,  
10 right, to understand -- if one of them went down, if a  
11 motherboard failed, for example, you would need some type of  
12 monitoring solution to understand if the system is running as  
13 you expect it to.

14 Q. And physically, what would be required to set up this  
15 system?

16 MR. FREEDMAN: Objection, Your Honor. Completely  
17 undisclosed expert report.

18 THE COURT: Sustained.

19 BY MR. KASS:

20 Q. If one wanted to mine Bitcoin from September 2011 through  
21 April of 2013 using this GPU system, and they were planning on  
22 mining a million Bitcoin, how many of these GPUs would they  
23 need?

24 MR. FREEDMAN: Same objection. And speculation as  
25 well.

1 THE COURT: Sustained.

2 BY MR. KASS:

3 Q. If this system was set up, would one be able to set it up  
4 and let it run and monitor it remotely, let's say from -- let's  
5 say this was set up in Tampa and that somebody wanted to set it  
6 up, drive back to Miami, could they monitor it remotely?

7 MR. FREEDMAN: Same objections, Your Honor.

8 THE COURT: Sustained.

9 BY MR. KASS:

10 Q. Could you describe to the jury what such a system would  
11 look like? If one were to go into a room and see this system,  
12 what would they see? What would they see with their senses?

13 MR. FREEDMAN: Same objections, Your Honor.

14 THE COURT: Could you clarify "the system"?

15 MR. KASS: Sure, Your Honor. Mr. Madura had  
16 described -- I'll call it a mining farm where one could mine  
17 Bitcoin on a large scale.

18 THE COURT: Maybe we clarify the question, please.

19 MR. KASS: Sure.

20 BY MR. KASS:

21 Q. So, Mr. Madura, if one wanted to mine Bitcoin on a large  
22 scale with the GPU, the power supplies, cooling system,  
23 interconnected motherboard, if one were to come into a room  
24 where this system was set up, what would they see or feel with  
25 their senses?

1 MR. FREEDMAN: Objection, Your Honor. As phrased, I'm  
2 objecting.

3 THE COURT: Sustained.

4 BY MR. KASS:

5 Q. Does running this mining farm system -- would it generate  
6 noise?

7 A. It would, yes. There would be fans running.

8 Q. Would the room -- would it generate heat?

9 A. It would, yes.

10 Q. Would it generate light?

11 A. Yeah. Depending on the specific hardware components. Many  
12 of them have some type of LED indicator light. So you would  
13 see lights, yes.

14 Q. If one had -- if a large mining farm was set up, would it  
15 be readily apparent as such a system?

16 MR. FREEDMAN: Objection, Your Honor.

17 THE COURT: The basis?

18 MR. FREEDMAN: Speculation and outside the scope.

19 THE COURT: Sustained.

20 BY MR. KASS:

21 Q. Mr. Madura, how does a large-scale mining farm, like the  
22 one proposed on that board, differ from a regular desktop  
23 computer that's running, if it does?

24 MR. FREEDMAN: Objection. Undisclosed expert opinion.

25 THE COURT: I'll allow it. Overruled.

1 THE WITNESS: Something of this scale would be much,  
2 much larger than just a typical desktop or laptop. This would  
3 be essentially room-sized devices, because you would -- just by  
4 the physical nature and the size of these things, you would  
5 need to stack them either upwards or horizontally. And that,  
6 by itself, takes up space. So you can think of a room full of  
7 computers essentially just stacked on top of each other.

8 BY MR. KASS:

9 Q. Do you know whether a mining farm like this would fit in a  
10 room in the VA hospital?

11 MR. FREEDMAN: I'm sorry. Could you repeat the  
12 question?

13 BY MR. KASS:

14 Q. Do you know whether a mining system like this would fit in  
15 the hospital, the VA hospital, in a room?

16 MR. FREEDMAN: Objection. Foundation. Undisclosed  
17 opinion.

18 THE COURT: Sustained.

19 BY MR. KASS:

20 Q. Mr. Madura, when you were here listening to  
21 Mr. Antonopoulos' testimony, did you hear him testify about the  
22 phrase: "Not your keys, not your Bitcoin"?

23 MR. FREEDMAN: Objection, Your Honor. Outside the  
24 scope.

25 THE COURT: I'm sorry. What is the objection?



1 MR. FREEDMAN: It's outside the scope. But right now,  
2 I guess --

3 THE COURT: Overruled.

4 THE WITNESS: Yes. I was here for that.

5 BY MR. KASS:

6 Q. What do you understand that phrase to mean?

7 A. So Mr. Antonopoulos -- so this phrase refers to essentially  
8 the notion that you should always control your private keys.  
9 As I mentioned before, the private keys are the -- is the thing  
10 you need to control Bitcoin. And so essentially the phrase:  
11 "Not your keys, not your coin" means that if you give someone  
12 else your private key, you're also allowing them access to  
13 control the Bitcoin as well. And so if you wanted to retain  
14 control yourself over your Bitcoin, you should keep it to  
15 yourself. So if they're not your keys, if you don't control  
16 your keys, they're not your coin.

17 Q. Do you recall Mr. Antonopoulos' testimony that in certain  
18 circumstances where you really trust the person, for example,  
19 his mother -- he says he does share his -- or her Bitcoin keys  
20 with himself, correct?

21 A. Yes.

22 Q. Is there a technological way that one could share control  
23 of Bitcoin on the Bitcoin blockchain without having to trust  
24 the other person?

25 MR. FREEDMAN: Objection. Outside the scope and

1 speculation.

2 THE COURT: Overruled.

3 THE WITNESS: Yes. There's a mechanism built into the  
4 Bitcoin software called multisig, where you can set it up  
5 similar to a safety deposit box, where you need your key and  
6 the bank teller's key, for example, in order to unlock the  
7 safety deposit box. That same mechanism exists on the Bitcoin  
8 blockchain. You can set it up in a way that you need two  
9 separate keys to unlock Bitcoin at the same time.

10 BY MR. KASS:

11 Q. Mr. Madura, would it work, then, that one person would hold  
12 one key and the other person would hold the other key?

13 MR. FREEDMAN: Same objections, Your Honor.

14 THE COURT: Overruled. I'll allow it.

15 THE WITNESS: That's correct.

16 BY MR. KASS:

17 Q. Then if they wanted to spend those Bitcoin, would they both  
18 have to be present to sign -- like, how does it work? So each  
19 side has their own key. How do they then go and spend these  
20 Bitcoin?

21 A. So, as I mentioned before, when you construct a  
22 transaction -- say I want to send five Bitcoin to my mother.  
23 In a multisig situation, you would need both participants to  
24 sign the transaction with each of their key. So they retain  
25 control. Each one has -- I have my key, they have their key.

1 We both sign the same transaction.

2 Q. From looking at Bitcoin blockchain, is it possible to tell  
3 whether a Bitcoin address is a multisig key which requires two  
4 people to unlock it?

5 MR. FREEDMAN: I'm sorry. I couldn't hear that  
6 question.

7 BY MR. KASS:

8 Q. From looking at the Bitcoin blockchain, is it possible to  
9 identify or tell whether a particular address is a multisig  
10 address which would then require two separate keys to unlock  
11 the Bitcoin?

12 MR. FREEDMAN: Again, Your Honor, outside the scope.  
13 I don't believe the word "multisig" appears in the report.

14 THE COURT: Yeah. Where --

15 MR. KASS: Your Honor, there's multiple mentions to  
16 locking scripts. Multisig is a type of locking script. It's  
17 on Paragraph 20 and Paragraph 83.

18 (Pause in proceedings.)

19 THE COURT: I'm sorry. The multisig, where --

20 MR. KASS: So, Your Honor, multisig --

21 THE COURT: No. You don't have to explain multisig.  
22 You've stated that it's in the report. I'm just looking for  
23 it.

24 MR. KASS: So it doesn't have that word because it's a  
25 subset of --

1 THE COURT: Sustained.

2 BY MR. KASS:

3 Q. Mr. Madura, do you know what a locking script is?

4 A. Yes. It's a term that generally refers to the multitude of  
5 ways you're able to essentially lock Bitcoin. The most common  
6 use is to an address, for example, but there are many others.

7 Q. Is multisig a type of locking script?

8 MR. FREEDMAN: Objection, Your Honor.

9 THE COURT: Overruled.

10 THE WITNESS: Yes.

11 BY MR. KASS:

12 Q. Is one able to look at the Bitcoin blockchain and tell  
13 whether certain Bitcoin addresses are locked by a script such  
14 as multisig?

15 A. Yes.

16 Q. Do you know when the first time any Bitcoin were mined into  
17 a multisig address that requires two people to unlock it?

18 A. Yes. In 2018 was the first multisig coinbase transaction,  
19 as we call it.

20 Q. Can you explain to the jury what a coinbase transaction is?

21 A. So, as I mentioned before, when you're mining, when you  
22 create a block of valid transactions, when you receive the 50  
23 Bitcoin that are created, you receive that in a special type of  
24 transaction, which is called the coinbase transaction. It's  
25 essentially how the Bitcoin come into existence.

1 Q. So you were able to look at all the coinbase transactions  
2 and determine that -- and is it accurate that the first time  
3 you determined this multisig, two-people locking script was I  
4 believe in 2018?

5 MR. FREEDMAN: Your Honor, again, I hate to object,  
6 but outside the scope of the disclosed report.

7 THE COURT: I'll allow it. Overruled.

8 THE WITNESS: For that particular type of locking  
9 script, yes.

10 BY MR. KASS:

11 Q. When were locking scripts such as multisig enabled on the  
12 Bitcoin blockchain?

13 A. The original software supported multisig, as well as a  
14 variety of other locking scripts from the original release.

15 Q. So is it accurate to state that from the start multisig  
16 existed on the Bitcoin blockchain?

17 MR. FREEDMAN: Objection. Leading.

18 THE COURT: Sustained.

19 BY MR. KASS:

20 Q. Let me ask you, Mr. Madura -- I'm going to go back to this  
21 timeline. Can you identify from the different dates what was  
22 the date when multisig -- when one could have mined Bitcoin  
23 into a multisig account?

24 A. From January 8th, 2009.

25 Q. And, Mr. Madura, this may not end up being to scale, but

1 could you tell the jury what was the first date a multisig  
2 transaction was actually -- Bitcoin ever mined into a multisig  
3 account?

4 A. From my review for that specific transaction type would  
5 have been sometime in 2018.

6 (Pause in proceedings.)

7 MR. KASS: Your Honor, if I could just have one moment  
8 to confer with my co-counsel?

9 THE COURT: Certainly.

10 (Pause in proceedings.)

11 MR. KASS: Your Honor, we're done with Mr. Madura.

12 THE COURT: Okay. Cross-examination.

13 CROSS-EXAMINATION

14 BY MR. FREEDMAN:

15 Q. Good morning, Mr. Madura.

16 A. Good morning.

17 Q. Mr. Madura, you're not opining that a multisig was used  
18 between Dave Kleiman and Craig Wright, are you?

19 A. No.

20 Q. In fact, no one used multisig until 2018, right?

21 A. Multisig existed before 2018. That's talking about  
22 specifically a coinbase transaction.

23 Q. But no one mined a Bitcoin into a multisig account until  
24 2018, correct?

25 A. That's my understanding, yes.

1 Q. And you know Dave Kleiman died in -- it's not on here, but  
2 April 2013, right?

3 A. Yeah. If you say so, yes.

4 Q. Nothing stops two people from agreeing to mine together and  
5 sharing their private keys, correct?

6 A. That's correct.

7 Q. Mr. Madura, you've done work for Dr. Wright in other cases,  
8 have you not?

9 A. I think so.

10 Q. Sorry?

11 A. I believe so.

12 MR. KASS: Objection. Relevance.

13 THE COURT: Overruled.

14 BY MR. FREEDMAN:

15 Q. In fact, you have written reports on behalf of Dr. Wright  
16 in other cases, too, have you not?

17 MR. KASS: Objection. Relevance.

18 THE COURT: The objection is overruled.

19 THE WITNESS: I believe so.

20 BY MR. FREEDMAN:

21 Q. You don't recall writing a report for Dr. Wright?

22 A. I'm not sure if it was related to a specific case or not.

23 Q. You have done work for Dr. Wright outside the context of  
24 this case, correct?

25 MR. KASS: Objection. Relevance.



1 THE COURT: The objection is overruled.

2 THE WITNESS: I believe so, yes.

3 BY MR. FREEDMAN:

4 Q. And that work was in a case involving -- or between Tulip  
5 Trading, Limited and somebody called Gregory Maxwell?

6 A. Not that I recall.

7 Q. Do you recall submitting a forensic report?

8 A. I've drafted forensic reports, yes.

9 MR. FREEDMAN: Ms. Vela, for just the witness and  
10 counsel, let's see if we can refresh Mr. Madura's recollection  
11 here. Can we put on the Tulip Trading exhibit packet?

12 THE COURT: I'm sorry. What exhibit?

13 MR. FREEDMAN: It's not an exhibit, Your Honor. We're  
14 just using it to refresh the witness's recollection.

15 Can we go to Page 44, I think.

16 BY MR. FREEDMAN:

17 Q. You see what's on the screen?

18 A. I do.

19 Q. Does this help refresh your recollection that, in fact, you  
20 did author a forensic report for Dr. Wright in litigation  
21 between Tulip Trading, Limited and Gregory Maxwell?

22 A. To be honest, I didn't know which case it was for. It was  
23 submitted to a law firm.

24 Q. Do you remember the scope of this report, Mr. Madura?

25 A. Not exactly.

1 Q. Do you recall whether in this report you offered opinions  
2 as to whether documents produced --

3 COURT SECURITY OFFICER: Here, try this one.

4 MR. FREEDMAN: Mr. Roche, can I have that  
5 demonstrative?

6 MR. KASS: Your Honor, objection.

7 THE COURT: And the basis, Mr. Kass?

8 MR. KASS: It's outside the scope of his direct  
9 examination, the contents of this particular report, and  
10 relevance.

11 THE COURT: The objection is overruled at this point.

12 BY MR. FREEDMAN:

13 Q. You were in the courtroom when Dr. Edman testified about  
14 forgeries one --

15 MR. KASS: Objection, Your Honor.

16 BY MR. FREEDMAN:

17 Q. -- through 10, correct?

18 MR. KASS: This is outside the scope of his testimony.

19 MR. FREEDMAN: If you could just give me one moment,  
20 Your Honor, I will link it up.

21 THE COURT: The objection will be overruled at this  
22 point with a very short path.

23 THE WITNESS: I was, yes.

24 BY MR. FREEDMAN:

25 Q. And in the litigation between Tulip Trading, Limited and

1 Gregory Maxwell, that you submitted for Dr. Wright, you opined  
2 very similarly on whether or not documents were manipulated or  
3 forgeries, correct?

4 MR. KASS: Your Honor, objection. Same objection.

5 THE COURT: Sustained.

6 BY MR. FREEDMAN:

7 Q. You're not here opining on the integrity of any documents  
8 in this case, correct?

9 A. That's correct.

10 Q. You're not opining on whether or not forgery one through 10  
11 are, in fact, forgeries, correct?

12 A. That's correct.

13 Q. You're capable of doing that investigation, though, are you  
14 not?

15 A. Depends entirely on the questions asked of me by counsel.

16 Q. Did anyone ask you to perform that analysis in this case?

17 MR. KASS: Objection. Privileged.

18 THE COURT: Sustained.

19 BY MR. FREEDMAN:

20 Q. Mr. Madura, you're employed by AlixPartners, correct?

21 A. That's correct.

22 MR. FREEDMAN: Ms. Vela, you can take that down.

23 Thank you.

24 BY MR. FREEDMAN:

25 Q. And AlixPartners receives \$480 an hour for your work,

1 correct?

2 A. Previously. That amount has changed.

3 Q. When you started in this case, you received \$480 an hour  
4 for your work?

5 A. My firm received that amount. I was on a regular salary  
6 basis, as I am today.

7 Q. And since that time, your rate has gone up?

8 A. I believe so, yes.

9 Q. So from the start of this case, sometime in the middle of  
10 this case, your rate has increased to?

11 A. \$665 per hour.

12 Q. \$665 an hour. Is it normal for experts such as yourself to  
13 increase their rate as time goes on?

14 A. I was promoted to a more senior position during that time.  
15 And so, naturally, we just have a rate card, a rate structure  
16 that differs based on the level that you're at at the firm.

17 Q. So it's normal that as you gain seniority your rate should  
18 go up?

19 A. At our firm, that's how it works, yes.

20 Q. Mr. Madura, AlixPartners, the firm that you're employed by,  
21 was hired to provide other services on behalf of Dr. Wright in  
22 this lawsuit, weren't they?

23 A. What type of services? I'm not sure what you're referring  
24 to.

25 Q. Well, are you aware that AlixPartners handled all the

1 discovery and other electronic production in this case for  
2 Dr. Wright?

3 MR. KASS: Your Honor, objection. Outside the scope  
4 of his testimony.

5 THE COURT: Overruled at this point.

6 THE WITNESS: I'm aware we provided litigation support  
7 services, yes.

8 BY MR. FREEDMAN:

9 Q. And you charge -- AlixPartners charges money for those  
10 services, correct?

11 A. I believe they do, yeah.

12 Q. And are you aware of an expert in this case also from  
13 AlixPartners called Nicholas Chambers?

14 A. I am, yes.

15 Q. And he's going to testify on behalf of Dr. Wright?

16 A. I believe so, yes.

17 Q. And he works at AlixPartners, too, right?

18 A. He does.

19 Q. And his rate is about \$665 an hour; is that right?

20 A. I'm not sure.

21 Q. Dr. Wright also has somebody called William Choi testifying  
22 for him in this case, another expert?

23 MR. KASS: Objection. Relevance.

24 THE COURT: Sustained.

25

1 BY MR. FREEDMAN:

2 Q. Dr. Wright has hired a lot of people from AlixPartners for  
3 this case, correct?

4 MR. KASS: Objection.

5 THE COURT: Sustained with regard to this witness.

6 BY MR. FREEDMAN:

7 Q. One last question on this, Mr. Madura. Do you know how  
8 much money in total your employer has received from Dr. Wright  
9 in connection with this case?

10 A. I do not.

11 Q. So, Mr. Madura, I want to define the scope of your expert  
12 opinion here today so you know where these next questions are  
13 going, okay?

14 You are not offering an opinion on whether or not Dave and  
15 Craig were partners, correct?

16 A. That's correct.

17 Q. You are not offering an opinion on whether Dave or Dr.  
18 Wright mined any Bitcoin, correct?

19 A. That's correct.

20 Q. You are not offering an opinion on whether Dave or Craig  
21 Wright held Bitcoin in trust, correct?

22 A. That's correct.

23 Q. You're not offering an opinion on whether Dave or Craig  
24 Wright shared the private keys to Bitcoin, correct?

25 A. That's correct.

1 Q. You're not offering an opinion on the technical skills  
2 required to mine Bitcoin, correct?

3 A. Not directly, no.

4 Q. You are not offering an opinion on whether or not Dave  
5 Kleiman could have contributed to the creation of Bitcoin  
6 outside of coding the actual Bitcoin source code, correct?

7 A. (No verbal response.)

8 Q. You want me to ask that again?

9 A. Yes, please.

10 Q. You're not offering an opinion on whether Dave could have  
11 contributed to the invention of Bitcoin in ways other than  
12 programming the code, correct?

13 A. My affirmative report, yes, essentially opines on if Dave  
14 Kleiman's skills and experiences were consistent with being  
15 able to code the original software.

16 Q. So contributions to creating Bitcoin outside of coding the  
17 software are beyond -- you're not opining on that here today,  
18 correct?

19 A. That's correct.

20 Q. You're not, for example, saying that Dave Kleiman didn't  
21 edit the Bitcoin Whitepaper, right?

22 A. No.

23 Q. You're not saying that Dave Kleiman didn't have long  
24 discussions with Dr. Wright designing the Bitcoin protocol, not  
25 the code, correct?

1 A. Well, considering the coding began before the whitepaper  
2 was released, it would be inconsistent if Dave Kleiman were to  
3 contribute to the coding or the structure of the code at all.

4 Q. Outside the code. Not talking about code yet. We will get  
5 to code in a minute.

6 Let's just say it simply. Outside of the code, you have no  
7 opinion on Dave Kleiman's participation in the creation of  
8 Bitcoin?

9 A. As far as it relates to the code itself, no.

10 Q. You're not saying Dave and Craig Wright did not mine  
11 Bitcoin in partnership, correct?

12 A. No.

13 Q. You're not offering an opinion on whether Dave or Craig  
14 Wright created intellectual property together, correct?

15 A. That's correct.

16 Q. Instead, your opinion is limited to whether you believe  
17 Dave Kleiman's background was consistent with someone who could  
18 write some of the code used in the original Bitcoin source  
19 code, correct?

20 A. Incorporating his skills and experience, yes. His ability  
21 to physically write the C++ code, as well as rebutting  
22 Mr. Antonopoulos.

23 Q. So the Bitcoin code was C++, right?

24 A. Yes.

25 Q. You know C++, right?



1 A. Yes.

2 Q. In fact, you're here as an expert on C++ in some capacity,  
3 right?

4 A. To the extent it informs how the Bitcoin system works, yes.

5 Q. To reach your opinion that Dave Kleiman's background is  
6 inconsistent with someone who would have programmed the Bitcoin  
7 code, you reviewed certain documents, right?

8 A. Yes.

9 Q. You didn't know Dave Kleiman while he was alive?

10 A. I did not.

11 Q. You didn't talk to Dave Kleiman ever?

12 A. Nope.

13 Q. So I want to get back to the basis for your opinion about  
14 Dave Kleiman in a moment. But before I go there, I want to ask  
15 you some questions about Satoshi Nakamoto. Okay?

16 A. (No verbal response.)

17 Q. You don't know whether Satoshi Nakamoto was one person or a  
18 team, correct?

19 A. No. But by reviewing the code itself, it was generally  
20 consistent with a single coding style.

21 Q. You're unable to make the determination of whether Satoshi  
22 Nakamoto was one person or a team, correct?

23 A. That's correct.

24 Q. It is possible that the Bitcoin code was written by more  
25 than one person, right?

1 A. Yes. It's possible. Although it's consistent with a  
2 single coding style.

3 Q. In fact, you don't know how much of the Bitcoin code was  
4 written by a single person, right?

5 A. That's correct.

6 Q. You can't give out credit for each line of the Bitcoin  
7 source code that you reviewed, correct?

8 A. No.

9 Q. You're not even offering any testimony on whether or not  
10 Dr. Wright was part of the Satoshi Nakamoto alias, right?

11 A. That's correct.

12 Q. You don't even have an opinion on whether or not Dr. Wright  
13 was Satoshi Nakamoto alone, correct?

14 A. I have no opinion as to that matter, no.

15 Q. In fact, at your deposition, you admitted you don't know a  
16 lot about Satoshi Nakamoto, right?

17 A. About the persona. Only about the public postings from the  
18 persona, that's correct.

19 Q. The first public version of the Bitcoin software is known  
20 as Version 0.1, right?

21 A. Yeah.

22 Q. And it's sometimes called the Satoshi code, correct?

23 A. It's been referred to as that, yes.

24 Q. And the Satoshi code, we established, was written in C++,  
25 right?

1 A. Yes.

2 Q. And your opinion is that the development of the Satoshi  
3 code for the Bitcoin software by Dave Kleiman would be highly  
4 inconsistent with his skills and experience, correct?

5 A. Yes.

6 Q. And I think you said, in your view, none of the information  
7 you reviewed regarding the professional or personal life of  
8 David Kleiman shows that he was a skilled programmer in any  
9 language, let alone an advanced language such as C++, nor even  
10 a novice C++ programmer, correct?

11 A. That's correct.

12 Q. So let's get back to the basis for your opinion. In coming  
13 to that opinion, you reviewed certain documents, right?

14 A. Yes.

15 Q. And you reviewed a copy of Dave's resume, right?

16 A. Yes.

17 Q. And you got that resume from Dr. Wright's legal team,  
18 right?

19 A. Yes.

20 Q. In fact, all of the documents that you relied on to form  
21 your opinion were provided to you by Dr. Wright's legal team,  
22 correct?

23 A. Yes.

24 Q. You don't know if Dave Kleiman had another resume that  
25 Dr. Wright's legal team didn't give you, right?

1 A. The materials that I reviewed were disclosed in my report.

2 Q. You don't know if there was another resume from Dave  
3 Kleiman that you simply weren't provided with, right?

4 A. I think yesterday you mentioned that there might be a  
5 different version. But other than that, no.

6 Q. So before yesterday, you did not know that there may be  
7 another version of the resume out there, right?

8 A. Yeah. I don't recall.

9 Q. And part of the basis for your conclusion was that the  
10 resume that you reviewed did not mention computer programming  
11 or C++, right?

12 A. In addition to deposition testimony from one of his  
13 colleagues, Kimon Andreou.

14 Q. You're aware that Dave Kleiman worked as an expert witness  
15 like yourself testifying in court about computer forensics,  
16 correct?

17 A. Yes.

18 Q. Were you aware that the copy of Dave Kleiman's resume that  
19 you relied on in forming your opinion was a copy of Dave  
20 Kleiman's resume that he specifically used for court?

21 A. I did not know that, no.

22 Q. The resume that you reviewed was Bates-labeled Kimon  
23 0010690. Do you recall that?

24 A. Not specifically, no.

25 MR. FREEDMAN: Ms. Vela, can we please show just the

1 witness and counsel Mr. Madura's report, Paragraph 30, Page 7.

2 No. No. No. The report of Mr. Madura.

3 Can we go to Paragraph 30.

4 BY MR. FREEDMAN:

5 Q. Does that help refresh your recollection that the resume  
6 that you reviewed was Kimon 0010690?

7 A. It does.

8 Q. Mr. Madura, you know how Bates numbers work. So each page  
9 is given a number.

10 A. Okay. Yes.

11 MR. FREEDMAN: Ms. Vela, for just witness and counsel  
12 can you put on the Bates that came right before the resume that  
13 Mr. Madura reviewed, Kimon 0010689.

14 BY MR. FREEDMAN:

15 Q. Were you provided with this document to review which  
16 attached the resume that you reviewed?

17 A. I don't recall, no.

18 Q. You don't recall reviewing this?

19 A. No.

20 Q. Does it refresh your recollection at all about the fact  
21 that the resume that you reviewed was specifically for Dave  
22 Kleiman's use in court?

23 A. That's what it says in the email. I would think that his  
24 resume would include his professional experience and his skill  
25 sets.

1 Q. Whether or not Dave Kleiman knew how to code C++ code  
2 programming is not relevant to computer forensic testimony,  
3 correct?

4 A. I think it would bolster his position as an expert,  
5 displaying the wide range of potential skill sets and  
6 understanding of how computer systems work even at a deeper  
7 fundamental level.

8 MR. FREEDMAN: Counsel -- one second. Give me a  
9 moment.

10 (Pause in proceedings.)

11 MR. FREEDMAN: I'm going to the deposition of  
12 Mr. Madura, Page 68, lines 22 through Page 69, line 2.

13 Any objection?

14 MR. KASS: We don't see it on the screen.

15 MR. FREEDMAN: So you don't have Mr. Madura's  
16 deposition with you right now?

17 MR. KASS: Not handy.

18 MS. MCGOVERN: The screen is not working.

19 MR. FREEDMAN: No. No. It's not on the screen. It's  
20 just a transcript. I'm just seeking to impeach Mr. Madura with  
21 his prior testimony.

22 MR. KASS: If you're going to be impeaching him --

23 MR. FREEDMAN: It's going to be Page 68, lines 22  
24 through Page 69, line 2.

25 If you could have your witness's deposition

1 transcript, it would be helpful, please.

2 MS. MCGOVERN: We're pulling it up now.

3 THE COURT: Are your screens working properly?

4 MR. FREEDMAN: It's not on the screen, Your Honor.

5 I'm just going to read it to him as impeachment once they don't  
6 have an objection.

7 (Pause in proceedings.)

8 MR. FREEDMAN: Could we have the question read back.

9 (Read back.)

10 MR. FREEDMAN: The question before that.

11 (Read back.)

12 MR. KASS: No objection.

13 BY MR. FREEDMAN:

14 Q. Mr. Madura, do you remember I took your deposition and you  
15 were under oath in that deposition?

16 A. Yes.

17 Q. And at that deposition, I asked you the following questions  
18 and you gave the following answers:

19 Question: "Isn't it true that C++ coding wasn't relevant  
20 to Dave Kleiman's public-facing forensic investigation  
21 business?"

22 Answer: "That's my opinion, yes."

23 A. You had asked about his business specifically.

24 Q. So it was relevant to -- it's not relevant to his business,  
25 but it is relevant to the business of him testifying in court?

1 Is that what your testimony is here today? Making a  
2 distinction between his business as a computer forensics expert  
3 and the function of him testifying in court as a computer  
4 forensic expert?

5 A. Not necessarily, no.

6 Q. Okay.

7 MR. FREEDMAN: Thank you, Ms. Vela.

8 BY MR. FREEDMAN:

9 Q. So one reason why his resume may not have discussed coding  
10 is because it simply wasn't relevant to his business, correct?

11 A. That's one possible explanation, yes.

12 Q. But nonetheless, you relied on the absence of C++ coding on  
13 his resume to say: "Inconsistent with knowing C++ coding,"  
14 right?

15 A. I reviewed his background, his certifications, as well as  
16 testimony from his colleague at a software development firm to  
17 come to my conclusion and my opinion.

18 Q. But part of your analysis is that C++ coding was not  
19 mentioned on his resume, right?

20 A. That's part of it, yes.

21 Q. You remember a few moments ago you testified that you are  
22 an expert in C++ coding and that you know C++ coding?

23 A. To the extent that it supports the Bitcoin blockchain, yes.

24 Q. Mr. Madura, you're aware that your resume does not mention  
25 C++ coding at all, correct?



1 A. The one that was submitted, yes.

2 Q. Doesn't mention C++ coding, correct?

3 A. It lists a variety of different programming languages.

4 Q. But it doesn't list C++ coding, correct?

5 A. That's correct.

6 Q. And yet, you're here as an expert in this case in this  
7 court testifying about C++ coding, aren't you?

8 A. I'm here to provide an opinion as to the Bitcoin  
9 technology, Bitcoin blockchain and its underlying technologies,  
10 including computer programming.

11 Q. And rendering an expert opinion on whether or not Dave  
12 Kleiman had the requisite C++ coding skills to code the Bitcoin  
13 blockchain. You formed your opinion on the basis of the fact  
14 that his resume doesn't contain C++ coding and you don't have  
15 it on your resume either?

16 A. My resume includes C, which is the basis for C++, as well  
17 as a variety of other programming languages, to demonstrate  
18 that I have the ability to assess the competency of other  
19 individuals and their programming skill sets.

20 Q. Mr. Madura, Perl is a computer programming language,  
21 correct?

22 A. It's a scripting language, yes.

23 Q. Programming language, right?

24 A. It's a script, a scripting language.

25 Q. Is it a form of coding?

1 A. It is.

2 Q. So it's a coding language, correct?

3 A. Yes.

4 Q. Let's go back to Dave Kleiman. You discussed that you  
5 reviewed a copy of Dave Kleiman's resume for court. And that  
6 you're aware that there's a copy of Dave Kleiman's resume that  
7 you didn't review, right?

8 A. I'm aware of that now, yes.

9 Q. You saw it yesterday, though, right?

10 A. Maybe briefly, but not -- I didn't study it.

11 MR. FREEDMAN: Ms. Vela, can you put P478 for the  
12 witness and counsel.

13 BY MR. FREEDMAN:

14 Q. This is the resume you saw yesterday?

15 A. It looks fairly similar to the one I reviewed.

16 Q. But it's not, right?

17 A. I'm not sure if the Bates numbers match up.

18 Q. Well, do you recall the Bates number of the one you  
19 reviewed was Kimon 0010690?

20 A. It appears to be different.

21 Q. It's different, right?

22 A. It is.

23 Q. This is the one you saw yesterday?

24 A. If you say so, yes.

25 MR. FREEDMAN: Your Honor, can we move P478 into

1 evidence?

2 MR. KASS: Objection. Hearsay.

3 THE COURT: What would be the purpose?

4 MR. FREEDMAN: We would like to talk about things that  
5 appear on the resume, Your Honor.

6 MR. KASS: Your Honor, hearsay.

7 MR. FREEDMAN: He was shown the resume yesterday and  
8 opined on the certifications based on it. So normally, we  
9 wouldn't seek to admit but we think since he was given it  
10 yesterday and then was read certifications off it, it would be  
11 fair to allow it into evidence.

12 Also, Your Honor, Mr. Andreou will come to testify in  
13 this proceeding and this document will be admitted by  
14 Mr. Andreou, so if we can admit it subject to getting  
15 Mr. Andreou to sponsor it.

16 MR. KASS: Your Honor, it's --

17 THE COURT: Mr. Kass?

18 MR. KASS: Sorry. It's still hearsay. There's still  
19 no foundation. Mr. Madura was not shown that transcript when  
20 he was testifying or asked questions.

21 THE COURT: For purposes of impeachment with regard to  
22 the premise of his opinions reviewing another CV, you may  
23 certainly show it. But I agree, the request to admit it into  
24 evidence is denied and the objection is sustained.

25

1 MR. FREEDMAN: Does that mean we can publish it, Your  
2 Honor?

3 THE COURT: You may show it but it does not come into  
4 evidence.

5 MR. FREEDMAN: Understood.

6 THE COURT: Just for purposes of impeachment.

7 MR. FREEDMAN: Yeah.

8 Ms. Vela, can we go --

9 MR. KASS: Your Honor, improper impeachment use of  
10 that document.

11 MR. FREEDMAN: It's not being shown to the jury.

12 MR. KASS: Well, it is being shown to the jury -- oh,  
13 sorry, Your Honor. Now it's not.

14 BY MR. FREEDMAN:

15 Q. Sorry. We were at Perl. Perl is a scripting language, a  
16 programming language, right?

17 A. It's a scripting language. It's not as low level as a C or  
18 C++ would be.

19 Q. But a programming language?

20 A. Yes.

21 Q. Okay. According to Dave Kleiman's resume, he was the  
22 tactical editor of a book titled: "Perl Scripting for Windows  
23 Security," right?

24 A. I'm not sure.

25 MR. FREEDMAN: Ms. Vela, can we please bring up P478

1 on the screen and publish it to the jury for purposes of  
2 impeachment.

3 Dave Kleiman's resume at the top. Ms. Vela, can you  
4 bring us to the next page.

5 "Published Works." Ms. Vela, can you zoom in on that  
6 and highlight "Perl Scripting for Windows Security, technical  
7 editor."

8 BY MR. FREEDMAN:

9 Q. Do you see that?

10 A. I do.

11 Q. You weren't provided with this resume before you rendered  
12 your opinion, right?

13 A. That's correct.

14 MR. FREEDMAN: Oh, can we please publish it?

15 BY MR. FREEDMAN:

16 Q. Sorry. Mr. Madura, we went through this but now the jury  
17 can see it. It says "Perl Scripting for Windows Security,  
18 technical editor," right?

19 A. That's what it says, yes.

20 Q. Mr. Madura, you're aware that Dave Kleiman studied computer  
21 science at Palm Beach Community College, right?

22 A. In the '80s, if I remember correctly, yes.

23 Q. You didn't review which classes he took when he was  
24 enrolled there, did you?

25 A. Not the specific classes, no.

1 Q. Did you review any classes he took when he was there?

2 A. Not that I can recall.

3 Q. So you didn't review any classes he took in Palm Beach  
4 Community College, correct?

5 A. That's correct.

6 Q. You don't know whether or not Dave Kleiman learned about  
7 coding at all when he was studying computer science at Palm  
8 Beach Community College, do you?

9 A. Not specifically, no.

10 Q. It's possible he did, right?

11 A. It's possible that he took a course in that, yes.

12 MR. KASS: Objection. Speculation.

13 THE COURT: Sustained.

14 BY MR. FREEDMAN:

15 Q. Were you aware, Mr. Madura, that Dave Kleiman studied  
16 computer science at the University of Maryland too?

17 A. I saw that, yes.

18 Q. That's where you went to school, right?

19 A. That's correct.

20 Q. Did you look at the courses he took while at the University  
21 of Maryland?

22 A. Not the specific courses, no.

23 Q. Did you look at any courses he took when he was enrolled in  
24 computer science at the same school you went to?

25 A. I think it was for a year, if I remember correctly on his

1 resume. But no, I didn't review specific courses, no.

2 Q. Are you aware that the first course in the computer science  
3 curriculum listed on the University of Maryland website is  
4 called "Object-Oriented Programming"?

5 A. I wasn't aware if that is the actual one. But the  
6 curriculum has likely changed since the '80s.

7 Q. And C++ is an object-oriented programming language, right?

8 A. Yes. It has object-oriented features in it. Typically,  
9 that class is taught in Java, however.

10 Q. You don't know what it was taught in the '80s, do you?

11 A. I don't. But by then, C++ had maybe just been released.  
12 It wasn't a widely commercially available programming language.

13 Q. Published a few years before then, right?

14 A. Yes.

15 Q. University of Maryland's a good school, right?

16 A. It is.

17 Q. Mr. Madura, you don't know one way or the other whether or  
18 not Dave attended a course on programming at any time before  
19 2008?

20 A. No, not specifically.

21 Q. In fact, in reaching your conclusion and your opinion about  
22 Dave Kleiman, you did not rule out the possibility that he  
23 was -- did attend a course on computer programming sometime  
24 before 2008, right?

25 A. Yes. Although attending a disparate course or two doesn't

1 confer any type of sophisticated expertise in anything, much  
2 less C++ specifically.

3 Q. You didn't rule out the possibility, correct?

4 A. Correct, yes.

5 Q. And it is entirely possible that Dave Kleiman taught  
6 himself C++?

7 MS. McGOVERN: Objection, Your Honor. There's no  
8 foundation. This is pure speculation.

9 THE COURT: Sustained.

10 BY MR. FREEDMAN:

11 Q. Do you know whether or not Dave Kleiman taught himself C++  
12 coding?

13 A. There's nothing in the materials that I reviewed that would  
14 infer that, no.

15 Q. Is there anything that would prevent himself from teaching  
16 himself --

17 MR. KASS: Objection. Speculation. Foundation.

18 THE COURT: Whether the witness knows. Overruled.

19 THE WITNESS: Could you repeat that?

20 BY MR. FREEDMAN:

21 Q. Yeah. Yeah. I didn't finish the question. I'm sorry.

22 The question was: Is there anything that would have  
23 prevented Dave Kleiman from teaching himself C++ coding?

24 A. Not that I'm aware of. Although it would be inconsistent  
25 with the materials I reviewed, including the testimony of one



1 of his colleagues at a software development firm.

2 Q. And at deposition, you previously testified that it is  
3 possible he could have taught himself C++ coding, right?

4 A. That's correct.

5 Q. Are you aware, Mr. Madura, that Patrick Paige, one of Dave  
6 Kleiman's closest friends, described Dave Kleiman as a  
7 self-taught computer genius?

8 A. Wasn't aware of that characterization, no.

9 Q. You're familiar with a website called Stack Overflow,  
10 right?

11 A. Yes.

12 Q. We talked about it at our deposition, right?

13 A. We did.

14 Q. And you're aware of a survey where more than 50,000 coders  
15 responded that -- and 69.1 percent of those 50,000 coders  
16 described themselves as somewhat self-taught, correct?

17 A. The users of that particular website, yes.

18 Q. 50,000 of them?

19 A. If you say so, yeah.

20 Q. And that same survey found that 13 percent of those coders  
21 were completely self-taught, right?

22 A. I don't recall specifically.

23 Q. And that 19.2 percent of those coders had some college  
24 coursework related to computer science like Dave Kleiman,  
25 right?

1 A. I don't recall that specifically.

2 MR. FREEDMAN: Ms. Vela, can you show Mr. Madura his  
3 deposition, Page 55, 8 through 13.

4 BY MR. FREEDMAN:

5 Q. Does that help refresh your recollection, Mr. Madura, that  
6 13 percent of coders were completely self-taught according to  
7 the Stack Overflow survey?

8 A. From that one particular survey, yes.

9 MR. FREEDMAN: Ms. Vela, can you show Mr. Madura Page  
10 56, lines 3 through 7 of his deposition.

11 BY MR. FREEDMAN:

12 Q. Mr. Madura, does that help refresh your recollection that,  
13 according to the survey, 19.2 percent of the coders had some  
14 college coursework related to computer science just like Dave  
15 Kleiman?

16 A. I see the 19.2 percent from this particular survey.

17 Q. And you saw Dave Kleiman had some computer science-related  
18 coursework, right?

19 A. I didn't review the courses specifically, but he -- yes.

20 Q. He studied computer science at University of Maryland and  
21 at Palm Beach Community College, right?

22 A. For potentially a year at Maryland and Palm Beach in the  
23 '80s, that's correct.

24 Q. Isn't it -- Mr. Madura, somebody who didn't have any  
25 college degree could nonetheless have meaningfully contributed

1 to the Bitcoin code, correct?

2 A. The developer of Bitcoin code was clearly very  
3 sophisticated -- a very sophisticated C++ programmer, likely  
4 with some type of formalized education.

5 Q. You have heard of Microsoft, right?

6 A. Yes.

7 Q. Complicated operating system, right?

8 A. Very much so, yes.

9 Q. Coded by Bill Gates, right?

10 A. That's correct.

11 Q. College dropout, right?

12 A. Yes.

13 Q. Somebody with no college degree, right?

14 A. Yes. Although I think his friends would say he would be a  
15 very good coder, yes.

16 Q. So it is true that someone who had no college degree could  
17 have contributed meaningfully to the Bitcoin code, correct?

18 A. It's possible.

19 Q. In fact, Mr. Madura, you taught yourself how to code long  
20 before you graduated from college, didn't you?

21 A. I did.

22 Q. As of April of 2020, you said that you had been reading and  
23 writing code personally and professionally for over 12 years,  
24 right?

25 A. That's correct.

1 Q. So that would have made you -- 12 years before 2020 would  
2 have been in 2008, correct?

3 A. That's correct.

4 Q. You would have been about 16 years old when you started  
5 professionally coding, correct?

6 A. That's correct.

7 Q. You didn't start college two years later, until 2010,  
8 right?

9 A. High school would have been 2010.

10 Q. So --

11 A. I'm sorry. You're right.

12 Q. You were reading and writing code personally and  
13 professionally two years before you had a bachelor's degree --  
14 sorry -- before you even started working on a bachelor's  
15 degree?

16 A. That's correct. Although my formal education really  
17 brought the different concepts of computer science together.  
18 It was more of a more basic understanding of coding and the  
19 formal education really teaches you a lot about specifically  
20 how computers and computer programming works on a more  
21 formalized level.

22 THE COURT: Mr. Freedman, let me know when it might be  
23 appropriate either to complete the cross-examination or take a  
24 break.

25 MR. FREEDMAN: Now.

1 THE COURT: How much longer do you have, sir?

2 MR. FREEDMAN: Now is perfect, Your Honor.

3 THE COURT: To take a break?

4 MR. FREEDMAN: Yes.

5 THE COURT: All right. Ladies and Gentlemen, let's go  
6 ahead and take a 20-minute recess.

7 (Jury not present, 11:28 a.m.)

8 THE COURT: All right. We're on a 20-minute recess.

9 (Recess from 11:29 a.m. to 11:47 a.m.)

10 THE COURT: Welcome back. Are we ready to continue?

11 MR. FREEDMAN: We are, Your Honor.

12 MR. RIVERO: Yes.

13 THE COURT: All right. Let's bring in the jury.

14 (Before the Jury, 11:47 a.m.)

15 THE COURT: All right. Welcome back, Ladies and  
16 Gentlemen. Please be seated.

17 And we'll continue with the cross-examination of the  
18 witness.

19 BY MR. FREEDMAN:

20 Q. Mr. Madura, just so you know where I'm going, I'd like to  
21 show you two pieces of evidence to find out whether or not you  
22 reviewed these before you formed your opinion. Okay?

23 A. Okay.

24 MR. FREEDMAN: Ms. Vela, can you please put on P853.1,  
25 which is in evidence.

1 BY MR. FREEDMAN:

2 Q. Mr. Madura, were you in the courtroom when Dr. Wright  
3 testified that this is his Slack message, only he posts from  
4 this Slack account?

5 A. I don't recall if I was there for that specifically.

6 Q. I'll represent to you as an officer of the court that that  
7 was his testimony. Okay?

8 A. Okay.

9 Q. Somebody in the Slack account posts the question: "So the  
10 code for Client 0.1 was pretty much Kleiman," and Dr. Wright  
11 responds: "No. Dave Kleiman and I." Do you see that?

12 A. I see that.

13 Q. Were you provided this piece of evidence to review before  
14 you formed your opinions in this matter?

15 A. I was not. I don't know when this was posted.

16 MR. FREEDMAN: Thank you, Ms. Vela. Can you take that  
17 down?

18 BY MR. FREEDMAN:

19 Q. Do you recall reviewing the deposition transcript of Kimon  
20 Andreou?

21 A. I do.

22 Q. And you relied on that in forming your opinion?

23 A. I do -- I did.

24 MR. FREEDMAN: Ms. Vela, can you put P767 on the  
25 screen, which is in evidence. Can we please share that with

1 the jury.

2 BY MR. FREEDMAN:

3 Q. Mr. Madura, this is an email message from Kimon Andreou to  
4 Ira Kleiman, which is in evidence in this case. And do you see  
5 on the one -- two, three, fourth -- fourth paragraph down  
6 Mr. Andreou tells Ira Kleiman: "If all the documents are  
7 authentic, then with the addition of anecdotal information we  
8 have from discussions with Dave all point to Dave and Craig  
9 indeed being behind Bitcoin?" Do you see that?

10 A. I see that.

11 Q. Were you provided a copy of this email from Kimon Andreou  
12 before you formed your opinion?

13 A. Not that I recall.

14 MR. FREEDMAN: Thank you, Ms. Vela. You can take that  
15 down.

16 Your Honor, we have no further questions for  
17 Mr. Madura.

18 THE COURT: All right. Any redirect?

19 MR. KASS: Yes, Your Honor.

20 REDIRECT EXAMINATION

21 BY MR. KASS:

22 Q. Mr. Madura, do you recall being asked a series of questions  
23 about Bill Gates' coding ability?

24 A. Yes.

25 Q. Do you know what university Bill Gates dropped out of?

1 A. I think it was Harvard.

2 Q. When Bill Gates dropped out of Harvard, was coding the same  
3 as coding in 2017 [sic] when the Bitcoin software was coded?

4 A. Sorry. Could you repeat the question?

5 Q. Sure. When Bill Gates dropped out of Harvard University,  
6 was coding the same as coding in 2007 when the Bitcoin software  
7 was starting to be coded?

8 A. It was much different. Computer programming languages have  
9 evolved dramatically over time, becoming more complex and  
10 there's many more of them.

11 Q. Do you know whether it's widely known that Bill Gates could  
12 code?

13 MR. FREEDMAN: Objection. Leading.

14 THE COURT: Overruled. I'll allow it.

15 THE WITNESS: I believe those within -- those who knew  
16 Bill Gates were familiar with his coding abilities, yes.

17 BY MR. KASS:

18 Q. Have you heard or read any testimony from any of Dave's  
19 friends with respect to his ability to code?

20 A. Only that he had trouble drafting even simple scripts and  
21 used -- utilized others to develop programs for him.

22 Q. Do you recall being asked a series of questions about  
23 self-reported levels of coding on some sort of a website?

24 A. Yes.

25 Q. Do you know if that website is representative of all coders



1 out there in the US?

2 A. I don't believe it is.

3 Q. Do you have any reason to believe why it may not be  
4 representative?

5 A. Well, that's only one website out of many that are out  
6 there. And those taking the survey, I think it was 50,000 or  
7 so -- there's many more coders in the world than just 50,000.

8 Q. Do you know whether coders who are looking for help with  
9 their coding are more likely to visit that website?

10 A. Yes. That's one primary reason for visiting the website,  
11 is to ask questions about code.

12 Q. So an experienced coder as yourself, would you be going on  
13 that website and filling out surveys as to your coding ability?

14 MR. FREEDMAN: Objection. Leading.

15 THE COURT: Sustained. Rephrase.

16 BY MR. KASS:

17 Q. Do you know whether -- do you know who are -- the primary  
18 users of that website are?

19 A. Yeah. The users of the website are typically -- well, it  
20 could be people learning to program, or people -- or typically  
21 novice programmers asking questions about how certain things  
22 work. And then others are able to respond providing answers to  
23 those questions, typically including code within the response.

24 Q. When one codes, are there other sorts of tools that you  
25 need to code?

1 A. Well, depending on the sophistication of the user, they can  
2 write it just in text files essentially. Now, development  
3 environments as we know them have evolved dramatically over  
4 time as well. And so there are entire programs built to help  
5 you build other programs essentially. It's like a text editor  
6 on steroids essentially that help you develop the code.

7 Q. Do you recall being asked some questions about your  
8 personal resume?

9 A. Yes.

10 Q. Does your resume have reference to your coding abilities?

11 A. Yes.

12 Q. What references are on your resume with respect to your  
13 coding abilities?

14 A. So I listed it in my work experience, in my work with the  
15 government, as well as listing a variety of different  
16 programming languages and the techniques used to develop secure  
17 code.

18 Q. Do you remember how many coding languages you listed on  
19 your resume?

20 A. Approximately 10. Something like that.

21 Q. Okay. Did you -- I believe you testified that C was listed  
22 on your resume?

23 A. It was.

24 Q. What relationship does C have to C++?

25 A. So C was one of the original programming languages. It's

1     been around for a very long time. And C++ is essentially a  
2     derivative of C. It adds on some additional features to make  
3     it slightly more organized and have standardized features, but  
4     C is essentially a superset of the C++ language.

5     Q. Now, by now, you've seen two resumes of Dave. You've seen  
6     the one that you saw on your report and the one that was shown  
7     to you briefly yesterday and, again, you were asked further  
8     questions, correct?

9     A. Yes.

10    Q. On either of those two resumes, is there any reference --  
11    does Dave Kleiman state: "I can write the 'X' coding  
12    languages," or any coding language?

13    A. No.

14           MR. KASS: And if we could pull up P478.

15           And then do you also have the additional document  
16    from -- can you also pull up the additional document which is a  
17    resume that Mr. Madura reviewed in drafting his expert report.

18           And if you could just scroll down to the second page  
19    so we could see where the resume starts.

20    BY MR. KASS:

21    Q. Okay. Mr. Madura, are there any significant differences  
22    between these two resumes --

23           MR. KASS: Well, actually, let's scroll down a little  
24    bit to give Mr. Madura a chance to look at it a little bit  
25    further.

1 So continue scrolling.

2 And a little bit more.

3 And go up a little bit.

4 Oh, that's perfect.

5 Now, if you would go back to the other one, which is  
6 the one that's in evidence as P478 and could you scroll through  
7 it.

8 Okay. You could stop right there.

9 BY MR. KASS:

10 Q. Mr. Madura, are there any significant differences between  
11 these two resumes?

12 A. I haven't compared them line by line but they look nearly  
13 identical.

14 Q. Well, let's look on the page that is -- the page where you  
15 are now where it shows the certifications on both of these two  
16 resumes. Do you see a list of certifications on both resumes?

17 A. I do.

18 Q. What's the comparison between the two different lists of  
19 certifications -- between the two of them?

20 MR. KASS: If you can do a pull-up and a comparison.

21 THE WITNESS: It appears to be the same list.

22 BY MR. KASS:

23 Q. Are there any certifications relating to coding?

24 A. No.

25 MR. KASS: You can take down the pull-ups, but please

1 leave the resumes.

2 Now I want to go back to the one that is introduced  
3 into evidence, which I believe is P -- well, not introduced  
4 into evidence -- that was shown to the jury, which is the P478.

5 And if you could scroll up a little bit towards the  
6 reference as to the books.

7 Scroll down.

8 There we go. Perfect. Okay.

9 Now, if you can take down the one that's not in  
10 evidence, the one on the right side of the screen.

11 Now, can you zoom in on the "Perl Scripting for  
12 Windows." It's going to be right there under "Published  
13 Works."

14 BY MR. KASS:

15 Q. Mr. Madura, do you recall being asked questions about the  
16 "Perl Scripting for Windows Security, technical editor"?

17 A. Yes.

18 Q. Were you shown any other part -- on cross, were you shown  
19 any other parts of this document where there may be some sort  
20 of reference to coding?

21 A. Not that I recall.

22 Q. Was this the only reference that you were shown?

23 A. I believe so.

24 Q. Okay. Do you know what a technical editor is?

25 A. My understanding in this context is essentially making sure

1 that the text of the book reads logically and is, well,  
2 technically, you know, in alignment with what you would expect  
3 from this type of book.

4 Q. Does one need to know how to code -- do you know whether  
5 one needs to know how to code to be a technical editor for a  
6 book on Perl scripting?

7 MR. FREEDMAN: I'm sorry. I couldn't hear that  
8 question.

9 BY MR. KASS:

10 Q. Do you know whether one needs to be a computer coder to be  
11 able to be a technical editor for a book on Perl scripting?

12 A. Not necessarily, no.

13 Q. All right. I believe you also testified that there's Perl  
14 scripting and then there's coding. Could you explain to the  
15 jury where Perl scripting falls into the, I guess, continuum of  
16 different types of computer coding.

17 A. So, as I mentioned before, there's low-level programming  
18 languages and then there's higher-level programming languages,  
19 and you could say scripting falls into that higher end. It's  
20 kind of an even higher level than that. And so Perl kind of  
21 sits at that higher-level end of the spectrum whereas C++ is  
22 much more -- kind of close to the system, much more complex.

23 And in this case, Perl scripting specifically for Windows  
24 Security is likely interacting with, say, the configuration  
25 variables of the Microsoft operating system, so Windows 7 or

1 something. This would be automating, essentially flipping  
2 flags or checking boxes, or what have you, and changing the  
3 configuration of the Windows operating system.

4 Q. Do you know whether if one knows how to -- assuming they  
5 knew how to script in Perl, does that mean they're able to code  
6 in C++?

7 A. No.

8 Q. Is this also -- I believe you said you reviewed the  
9 testimony of Kimon Andreou.

10 A. Yes.

11 Q. Did he provide -- did he say something about Dave's ability  
12 to do simple scripting?

13 A. I believe the statement was he required help with  
14 developing even simple scripts.

15 MR. KASS: Your Honor, if you could give me one  
16 moment.

17 THE COURT: All right.

18 (Pause in proceedings.)

19 MR. KASS: Your Honor, if I could have one more  
20 moment. I believe I'm done.

21 THE COURT: All right. Certainly.

22 (Pause in proceedings.)

23 MR. KASS: That's it, Your Honor.

24 THE COURT: All right. Thank you, sir.

25 Ladies and Gentlemen, you have certainly the

1 opportunity to ask questions of Mr. Madura. Does anyone have  
2 any questions? If you do, just raise your hand so that I can  
3 give you the time to write your question down. And I would ask  
4 that you provide it to the court security officer.

5 Is there anyone else that has a question for  
6 Mr. Madura?

7 Okay. Seeing no further questions, let me have the  
8 attorneys sidebar, please.

9 (At sidebar on the record.)

10 THE COURT: All right. Here we go. The first  
11 question reads as follows: "When making transactions from one  
12 person or private key to another, can the location of either  
13 sender or receiver be traced?"

14 MS. MCGOVERN: No objection.

15 THE COURT: All right. Hold on. Second question:  
16 "In reference to lines of coding, how can you tell if coding is  
17 done by one person or many?"

18 MR. KASS: No objection.

19 MR. FREEDMAN: I think that's outside the scope of his  
20 report.

21 THE COURT: Third question -- I'm sorry?

22 MR. FREEDMAN: I think that's outside the scope of his  
23 report.

24 THE COURT: Okay. Hold on. I need one attorney.

25 (Court reporter interruption.)



1 THE COURT: Yeah. One attorney on behalf of the  
2 Plaintiffs. One attorney on behalf of the Defendant.

3 I just read the second question. Is there any  
4 objection by the Plaintiffs?

5 MR. FREEDMAN: I believe so. One moment.  
6 (Pause in proceedings.)

7 MR. FREEDMAN: Okay. Fine. No objection.

8 THE COURT: All right. Third question: "How does a  
9 style of coding be used to identify an individual or is it even  
10 possible to identify the individual?"

11 MS. MCGOVERN: No objection, Your Honor.

12 MR. FREEDMAN: No objection.

13 MR. RIVERO: No objection.

14 THE COURT: All right. Thank you.

15 (End of discussion at sidebar.)

16 THE COURT: All right. Ladies and Gentlemen, thank  
17 you for the questions. There are three questions. They are  
18 permissible and I will ask Mr. Madura each in turn.

19 The first question, Mr. Madura, is the following:  
20 "When making transactions from one person or private key to  
21 another, can the location of either sender or receiver be  
22 traced?"

23 THE WITNESS: No. No.

24 THE COURT: Have you finished your answer, sir?

25 THE WITNESS: Yes.

1 THE COURT: The second question is the following: "In  
2 reference to lines of coding, how can you tell if coding is  
3 done by one person or many?"

4 THE WITNESS: Typically, you are unable to tell  
5 specifically who coded a particular line, unless you're  
6 utilizing what's called a -- well, a GitHub repository, for  
7 example, which assigns specific lines of code to a particular  
8 individual.

9 In the case of the original Bitcoin software, we don't  
10 have that type of history, so it's just the text files  
11 themselves.

12 THE COURT: Have you completed your answer, sir?

13 THE WITNESS: I have.

14 THE COURT: The third question reads the following:  
15 "How does a style of coding be used to identify an individual  
16 or is it even possible to identify the individual?"

17 THE WITNESS: Unless you know the coder and are  
18 familiar with their prior work, it's difficult to assign a  
19 particular coding style to one person or another.

20 I'm finished, yes.

21 THE COURT: All right. Thank you, sir.

22 All right. No further questions. Is there any  
23 follow-up with regard to these three specific questions on  
24 behalf of the Defendant?

25 MR. KASS: No.

1 THE COURT: On behalf of Plaintiffs?

2 MR. FREEDMAN: No, Your Honor.

3 THE COURT: All right. Is Mr. Madura excused?

4 MR. KASS: Yes, Your Honor.

5 THE COURT: On behalf of Plaintiffs?

6 MR. FREEDMAN: Yes, Your Honor.

7 THE COURT: Thank you, sir. You are excused.

8 (Witness excused.)

9 THE COURT: And the Defendant's next witness.

10 I'm sorry? I didn't hear the response.

11 (Court reporter interruption.)

12 THE COURT: Yeah. If you could identify yourself and  
13 speak into microphone, please.

14 MR. FERNANDEZ: Your Honor, Michael Fernandez for  
15 Dr. Craig Wright. We are going to be playing one clip of  
16 Plaintiff, Ira Kleiman, and then we'll be proceeding with the  
17 testimony of Mr. Nicholas Chambers.

18 THE COURT: All right. One clip being the deposition  
19 testimony?

20 MR. FERNANDEZ: Yes, Your Honor.

21 THE COURT: All right. Then, Ladies and Gentlemen,  
22 you are to consider the testimony as if the witness was  
23 testifying on the witness stand.

24 And can we identify the date of the deposition. And  
25 if you can identify the page and line for the record because,

1 as I understand it, since these are portions of the deposition,  
2 that you do not want the court reporter to transcribe; is that  
3 correct?

4 MR. FERNANDEZ: Correct, Your Honor.

5 THE COURT: All right, then.

6 MR. FERNANDEZ: So, Your Honor, it is the January 10,  
7 2020 deposition and the clip will run from Page 64, line 7,  
8 through Page 64, line 24.

9 THE COURT: Thank you.

10 MR. FERNANDEZ: Thank you, Your Honor.

11 (Video played.)

12 MR. FERNANDEZ: Thank you, Your Honor. And at this  
13 time, Dr. Craig Wright would call Mr. Nicholas Chambers to the  
14 stand.

15 THE COURT: All right. Certainly.

16 Is this Mr. Chambers?

17 MR. FERNANDEZ: Yes, Your Honor.

18 THE COURT: Good afternoon, sir. If you'll step  
19 forward, remain standing. Raise your right hand to be placed  
20 under oath.

21 NICHOLAS CHAMBERS, DEFENSE WITNESS, SWORN

22 COURTROOM DEPUTY: Can you please state your name and  
23 also spell it for the record.

24 THE WITNESS: Nicholas Chambers. C-H-A-M-B-E-R-S.

25 COURTROOM DEPUTY: Thank you.

DIRECT EXAMINATION

BY MR. FERNANDEZ:

Q. Good afternoon, Mr. Chambers.

A. Good afternoon.

Q. Can you please tell the jury about your educational background?

A. Sure. I have a bachelor of science in computer engineering and computer science, specializing in digital forensics, from the University of Southern California.

Q. And what do you do for a living?

A. I am a digital forensics examiner.

Q. And have you been asked to testify about topics related to digital forensics in this case?

A. Yes, I have.

Q. And, Mr. Chambers, are you here to provide an opinion as to whether there was any sort of partnership between David Kleiman and Dr. Craig Wright?

A. No, I'm not.

Q. And can you please tell the jury about your employment experience.

A. I began my career at SPAWAR Pacific, S-P-A-W-A-R, which is a research center underneath the Department of Defense for the federal government. I worked there as an information technology support and development team member. From there, I moved on to Navigant Consulting as a senior consultant in their

1 digital forensics and investigation practice. And lastly, I  
2 moved on to AlixPartners where I currently work and where I've  
3 been for seven and a half years, and I am a senior vice  
4 president in the digital forensics and global cybersecurity  
5 practice.

6 Q. And over your career, what kinds of things have you worked  
7 on?

8 A. Through my career, I've worked on hundreds of civil and  
9 criminal cases, and provided consulting and my digital forensic  
10 expertise on those cases and matters.

11 Q. And are you involved in any professional associations?

12 A. Yes. I'm a long-time member of the High Technology Crime  
13 Investigation Association, which is known as HTCIA, and it's a  
14 non-profit organization that provides education and networking  
15 for digital forensics and incident response professionals, and  
16 many law enforcement members are also part of that  
17 organization.

18 Q. And during your professional career, have you participated  
19 in any trainings on digital forensics?

20 A. Yes. I participated in many trainings related to the areas  
21 of digital forensics and the examination of digital media, and  
22 the usage of digital forensic software. Many of those  
23 trainings were conducted by the SANS Institute, which is a  
24 leading organization that conducts those types of trainings for  
25 professionals in that industry.

1 Q. And have you conducted any trainings yourself?

2 A. Yes. I'm a frequent speaker at law firms on the area of  
3 digital forensics. And I am a frequent -- also a presenter and  
4 speaker at non-profit organizations, State Bar associations,  
5 and other conferences.

6 Q. And have you earned any certifications on digital forensics  
7 or other computer forensics-related issues?

8 A. Yes. I earned my EnCase certified examiner, which is EnCE.  
9 It's an industry standard certification that shows that you  
10 have proven your knowledge and practical use of the EnCase  
11 forensic software, which is used and accepted in courts all  
12 over the world for digital forensic examinations.

13 Q. And have you ever been invited to be a speaker on digital  
14 forensics issues?

15 A. Yes. At many different conferences and associations and  
16 law firms.

17 Q. And what were you asked to testify about in this case?

18 A. I was asked to examine 14 devices belonging to the  
19 decedent, David Kleiman. And I was also asked to write a  
20 rebuttal report associated with Dr. Edman's testimony.

21 Q. And you prepared reports on the issues that you were asked  
22 to testify about in this case?

23 A. Yes. I prepared two reports, one affirmative and one  
24 rebuttal.

25 Q. And when coming to the conclusions you made in those

1 reports, did you rely on methods that are widely used in your  
2 field?

3 A. Yes. The methodology I used was industry standard and  
4 accepted as standard in our practice.

5 Q. And would someone be able to replicate your conclusions?

6 A. Yes. With the evidence I had, the training I have, and the  
7 software available to me, they could replicate my results.

8 Q. And over your career, how many devices have you examined?

9 A. Over my career, I've examined hundreds, potentially  
10 thousands of pieces of electronic media to include computer  
11 hard drives, thumb drives, cellphones; any manner of media that  
12 can hold electronic data.

13 Q. And during your career, how many devices have you attempted  
14 to recover?

15 A. Likely a similar number of devices. Typically, the two go  
16 hand in hand. When we're examining electronic media, typically  
17 also attempt to recover data from that media at the same time.

18 Q. So I dropped out of computer science in high school, so  
19 it's a little bit of a mystical field for me. So I want to ask  
20 you about what exactly your field of expertise is about. Can  
21 you tell the jury what is digital forensics?

22 A. Digital forensics is the scientific investigation,  
23 analysis, and recovery of data stored on electronic media.

24 Q. And using digital forensics, is it possible to recover  
25 information that was deleted from a device?



1 A. It's sometimes possible to recover data, but not always.  
2 There's a number of different factors that go into that.

3 Q. So let's talk a little bit about kind of the background of  
4 how the process of what you would do would work out.

5 So I think, going back to basics, can you tell us how data  
6 is ordinarily stored in a device?

7 A. Sure. Data is arranged on a device via what we call a file  
8 system, and a file system is really just the structure and the  
9 rules for organizing and accessing the data on that device.

10 So I like to use an analogy of a library to describe this.  
11 So the library has rules. It's set up in a certain way. There  
12 are shelves where we can place books. And there's also a card  
13 catalog in this library, kind of an old-school library, where  
14 there's an entry in the card catalog for every book that it's  
15 tracking in the library.

16 And those card catalog entries will have information such  
17 as the title of the book, maybe a little bit more information  
18 about when the book came to reside in that particular library.  
19 And more importantly, it will also tell us where in the library  
20 that book is stored. So if it's on shelf A, in the first  
21 position, it will tell you that. And you can go through the  
22 library and find the book and read it if you wanted to read it.

23 Q. And can you explain for the jury what is formatting?

24 A. Sure. Formatting is simply placing a file system on a  
25 drive. So similar to the library analogy, it's just preparing

1 to store books; in this case, files on a device.

2 Q. And what happens when new information is added to a device?

3 A. Going back to our library analogy, if a new book comes into  
4 the library and it needs to be stored, the first thing that  
5 would happen -- this is generally speaking -- the first thing  
6 that would happen is that a new entry would be added to the  
7 card catalog with information about that book. And then we  
8 would choose a place on one of the shelves for the book to be  
9 stored. And we can look at a card catalog and see what spaces  
10 are available for something to go in.

11 Where this becomes a little bit tricky and where it's not  
12 quite exactly organized how, you know, you and me as humans  
13 think that it logically should be organized, is that sometimes  
14 a book will come in and -- let's say it's a very large book.  
15 It's two volumes, one and two. Sometimes the volumes will be  
16 split. Maybe one volume is put on a shelf, shelf A, and the  
17 second volume is put on a different shelf, shelf B.

18 And why it's so important to have that card catalog is  
19 because it tells exactly where the pieces of the book reside.  
20 We can go to shelf A to find the first one and shelf B to find  
21 the second book -- or volume, rather. And then we can put them  
22 together and read the whole thing if we want.

23 And this is similar to what happens on a file system with  
24 files. When you add a file to a drive, sometimes it will be  
25 placed all in one area. Sometimes it will be split up and

1 placed into different areas. But we need to have that  
2 reference, what we call an index, in a file system similar to  
3 the card catalog in a library. That index lets us find out  
4 where the actual pieces of the data are.

5 Q. And so would copying and pasting new data to a drive have  
6 this impact that you're talking about?

7 A. Yes. It would follow the same procedure. Yeah.

8 Q. How about if you create a new document?

9 A. Yes. Same.

10 Q. And if you "save as," would that also add data to a device?

11 A. Yes, it would.

12 Q. Okay. And what happens when data is deleted?

13 A. When data is deleted -- we'll go back to the library  
14 analogy. If a book is determined to no longer be needed,  
15 essentially what happens is, in the card catalog, the space  
16 where the book resides is marked as now available to be used,  
17 but the actual book stays on the shelf. It doesn't go anywhere  
18 until something else comes along and takes its place.

19 And so the card catalog is split into things that are  
20 available and things that are in use in terms of spaces on the  
21 shelf. And so if the book is deleted, a file is deleted, the  
22 actual data doesn't go anywhere. It's just marked as available  
23 for something else that can come along and take its place if  
24 it's needed.

25 Q. What does it mean to format a device?

1 A. So as we spoke about previously, formatting is placing a  
2 file system on a drive. And so if you are formatting a device  
3 that already has a file system in place, essentially you are  
4 throwing out the card catalog, if we're using that analogy, and  
5 putting a new one in its place. And there's a couple different  
6 ways to format a drive. So I'll go through the two different  
7 ways.

8 The first is what we call a quick format. And that's  
9 preparing the drive to be used -- that's what formatting is. A  
10 quick format, it's a very quick process. It's almost  
11 instantaneous to the user. What it does is it throws out the  
12 card catalog, puts a new one in its place, but everything in  
13 the shelves, all the data for the files, remain. It's just the  
14 card catalog doesn't see it anymore. It doesn't see them as in  
15 use. They're just available to be written to if they need to.

16 There's also full formatting. Full formatting is a much  
17 longer process and can take potentially up to a couple hours  
18 depending on the size of the drive that you're dealing with.  
19 And what it does is it throws out the card catalog and it also  
20 starts going through all the shelves in the library and  
21 throwing out all the books as well. So you start from a  
22 completely clean slate. That's full formatting.

23 Q. What does it mean when you reformat a device?

24 A. Reformatting is formatting a device that already has a file  
25 system. So either you're doing a quick format or a full

1 format. Either way, at the very least, the card catalog is  
2 being thrown out. So the references to where things are stored  
3 on the drive are gone.

4 Q. And is there a concept called fragmentation associated with  
5 this reformatting process?

6 A. That's right. Fragmentation is eluding to what we talked  
7 about earlier where a new file is added. Sometimes they're  
8 split up into multiple different pieces on the drive. That's  
9 what we refer to as fragmentation. And that's why it's so  
10 important to keep that card catalog intact, because it allows  
11 us to put back together and piece back together the different  
12 pieces of the files.

13 Q. So -- and I started using computers about 20 years ago when  
14 I was in high school and I remember that you had to defragment  
15 your devices. Is that something that you would -- what you're  
16 speaking about here?

17 A. Yes. You may have heard the term "defrag your computer"  
18 before. That essentially is trying to reorganize it in a way  
19 to put everything back together. So if you have piece one and  
20 piece two that are separate, you try to put them next to each  
21 other so it's not as disorganized. That's essentially what  
22 that means.

23 Q. When you reformat a device, what does it do to the data on  
24 the device?

25 A. Depends on the type of reformatting that you do. If it's a

1 quick reformat, as I described, you throw out the card catalog  
2 but the data remains on the drive. If you do a full format,  
3 then you are throwing out the index and also clearing the  
4 shelf, so to speak, clearing the drive of data.

5 Q. So it sounds like reformatting can put that at risk?

6 A. Yes. It absolutely does. By its very nature, it is  
7 changing the contents of the media of the drive.

8 Q. And when a device is reformatted, would it affect your  
9 ability as a forensicist to go back and recover any data on the  
10 device?

11 A. Yes. It greatly impacts the ability to recover data. Like  
12 I mentioned, if you throw out the card catalog, using the  
13 library analogy, if we're trying to piece back together what  
14 was there, it's very hard to tell maybe where one file starts  
15 and where it should end because it's split amongst each other.  
16 It's hard to determine how the drive and how the shelves in the  
17 library are organized. That's why it's important to have that  
18 card catalog.

19 Q. And what other things can affect your ability to recover  
20 data on a device?

21 A. Things such as encryption can affect the ability to recover  
22 data. Things such as installing an operating system can affect  
23 the ability to recover data. And also the simple act of adding  
24 data to a drive can also affect the ability to recover data.

25 Q. Is there a technical term used for adding data to a drive?

1 A. We call it writing data and overwriting data on a drive.

2 Q. Let's talk through -- about encryption. What is  
3 encryption?

4 A. Encryption is the means by which you can essentially secure  
5 data and make it inaccessible, unless you know how it was  
6 encrypted and the passcode that was used to encrypt it.

7 Q. So how does overwriting affect your ability to recover data  
8 on a device?

9 A. Simply put, there's no way to go back from overwriting.  
10 Once something is overwritten, you cannot recover what was  
11 there before.

12 To describe overwriting a bit more, going back to our  
13 library example, we had deleted the book from -- or decided  
14 that we didn't need the book any longer in the library. It  
15 remained on the shelf until something else came along and took  
16 its place. What can happen is that if a new book comes in and  
17 it's determined that that book should be in the spot where the  
18 deleted book is currently residing, the deleted book will be  
19 removed, thrown away, and the new book will go in its place.

20 And this can happen when you write data to a drive, or  
21 items that are not seen by the card catalog or not seen by the  
22 file system, because it doesn't know they're there or they're  
23 available to be written to, they can take the place of those.

24 And what can happens sometimes is that the book -- the  
25 library is -- now we're getting a little difficult with the

1 analogy. But what can happen sometimes is when you throw out  
2 the book, parts of the book can remain in the position. So  
3 maybe the new book that came in is not quite the same size as  
4 the book that was there before. What can happen is the new  
5 book can be in place and a little bit of the old book can  
6 remain. And that's what we call fragmentary data because it's  
7 kind of left over from what was there before.

8 Q. How about installing an operating system? How does that  
9 affect your ability to recover data on a device?

10 A. Installing an operating system is a massive operation that  
11 involves writing and adding thousands of files to a drive. You  
12 are all familiar with an operating system such as Windows, or  
13 if you have a Macbook, Mac OS in the operating system on there.  
14 It allows a user to essentially control the computer and add  
15 files and run programs and do all the things that you expect a  
16 computer to be able to do.

17 And when we install an operating system, like I said, it's  
18 a massive operation and fundamentally changes the contents of  
19 the drive by the operation itself.

20 Q. And how does encryption affect your ability to recover data  
21 on a device?

22 A. Like I said, encryption is a means to secure and render  
23 data inaccessible unless you know the way to access it. We are  
24 not able to view the contents of encrypted data unless we're  
25 able to unlock it first.



1 When we look at data in our forensic tools, really when  
2 you're looking at the content of encrypted data, it looks like  
3 a jumble of random data. It's not readable like we would  
4 expect a Word document or a PDF to read, to be readable.

5 When we encrypt something, to use the library analogy  
6 again, you're essentially putting a locked door around one of  
7 the shelves, for instance. And if you don't have the key to  
8 that lock, you can't see what's there.

9 Q. And so is that -- for instance, talking about the  
10 encryption and how it might come across to an end user, is that  
11 like when you open a document, it's like a bunch of squiggles  
12 and symbols that are randomly just there and it's not visible  
13 text?

14 A. That could be one example, yes.

15 Q. And are there different levels of encryption?

16 A. There are many different encryption schemes out there.  
17 Some encryption schemes can be run, or some -- excuse me --  
18 some encryption programs can apply multiple different schemes,  
19 and some schemes are stronger than others. But generally  
20 speaking, they all operate on the same principle, is that you  
21 need the passcode in order to view whatever is encrypted.

22 Q. And are there ways to try to get around an encryption to  
23 access information on a device?

24 A. If you do not have the passcode or the means to open and  
25 unlock that encrypted data, one of the only remaining options

1 to you is what we call a brute force attack, which is --  
2 essentially to use the library analogy of a locked door.  
3 You're essentially trying every combination of key to open up  
4 that lock. It can take a significant amount of time  
5 potentially to do that.

6 Q. So it's not always possible to break an encryption for a  
7 device; is that right?

8 A. It's not always practically feasible, yes.

9 Q. Okay. So you said you were first asked to examine certain  
10 devices here. There are certain demonstratives up on the  
11 board.

12 MR. FERNANDEZ: Your Honor, I'm going to ask that D425  
13 be published to the jury as well, which is drawn from these  
14 demonstratives.

15 BY MR. FERNANDEZ:

16 Q. So, Mr. Chambers, do these look like the devices that you  
17 reviewed?

18 A. Yes, they do.

19 Q. And have you seen those devices before?

20 A. I had not seen those physical devices before, but they seem  
21 to match the make and model of the devices I reviewed.

22 Q. So you reviewed five hard drives?

23 A. Yes.

24 Q. And you reviewed nine thumb drives?

25 A. That's right.

1 Q. Why didn't you see the thumb drives?

2 A. I did not physically view the thumb drives because forensic  
3 images or exact copies of those devices were sent to me by  
4 Plaintiffs' counsel for analysis.

5 Q. So we'll talk about -- we'll get to what a forensic image  
6 is, because, as I said, only with ninth-grade computer science,  
7 it's a little bit beyond my head. But let's talk about --  
8 before we get there, let's talk about what you were asked to do  
9 with these devices. Can you speak to what you were asked to  
10 do?

11 A. I was asked to identify activity before and after Dave  
12 Kleiman's death in 2013 and the impact of that activity on  
13 these devices. I was asked to identify encrypted data on the  
14 devices and I was asked to recover data on the devices via  
15 deleted file recovery and file carving.

16 Q. And what kind of activity were you asked to look out for?

17 A. I was asked to look out for activity that would impact the  
18 contents of the drives.

19 Q. So, for example, some of the things we talked about, like  
20 overwriting.

21 A. Exactly. So installing an operating system, formatting,  
22 adding data, overwriting data.

23 Q. Okay. And so did you actually review these devices -- or  
24 you said you reviewed something else, forensic images; is that  
25 right?

1 A. That's right. I did not, during my examination, review the  
2 actual physical devices themselves, but I reviewed what we call  
3 forensic images which is essentially just a single file that  
4 contains the entirety -- the entire content of a physical  
5 drive, physical device.

6 So I had 14 forensic images to review, instead of 14  
7 devices themselves. And the forensic images are exact copies  
8 of the originals.

9 Q. So does the fact that you reviewed a forensic image, and  
10 not the device itself, affect your conclusions in this case?

11 A. No, not at all. Having the forensic image is like I had  
12 the original device itself. And we can prove that the forensic  
13 image is an exact copy of the original via a mathematical  
14 operation where essentially it's assigning a digital  
15 fingerprint of the physical device at the time it was collected  
16 and the data in the forensic image that we have. And if they  
17 match, which they did in this case, we know that the forensic  
18 image we're looking at is an exact copy of the original.

19 And it's an exact copy of the original at the time the  
20 forensic image is made, which my understanding is all these  
21 forensic images were not created until 2019.

22 Q. So -- but you reviewed to make sure that they were exact  
23 copies?

24 A. Yes.

25 Q. And did you test to see whether there were any alterations

1 made to the forensic images?

2 A. I did. I tested via that mathematical operation that I  
3 described to ensure that the hash values were correct and  
4 matched, which they did.

5 Q. What did you do when you went to examine these devices?

6 A. I used forensic best practices when I was reviewing these  
7 devices, including using a clean environment to ensure that  
8 there was no other data from other cases or other information  
9 that could taint my results. And I also used a -- what we call  
10 a write blocker to ensure that no changes are made to the data  
11 that I'm examining.

12 Q. So kind of to think back to basic high school chemistry or  
13 biology, you went to a laboratory and started to perform  
14 testing on the devices. Is that kind of a fair way of  
15 describing what you did?

16 A. Yes. That's fair.

17 MR. FERNANDEZ: Okay. So if we can put up  
18 Mr. Chambers' demonstrative.

19 BY MR. FERNANDEZ:

20 Q. Let's talk about kind of what you found when you looked at  
21 these devices. So did you detect any signs of encryption on  
22 the thumb drives that you reviewed?

23 A. Yes. I identified TrueCrypt container files on three of  
24 the thumb drives.

25 Q. So the first three?

1 A. Devices 1, 2 and 3, correct.

2 Q. And what is TrueCrypt?

3 A. TrueCrypt is a discontinued free software program that  
4 allows a user to encrypt their data. And you can either  
5 encrypt it with -- you can encrypt a single container file or  
6 you can encrypt whole sections of a drive.

7 And so going back to the library analogy, you could  
8 encrypt, for instance, a single book or you could encrypt  
9 entire shelves of the library and basically put a wall around  
10 an entire shelf.

11 MR. FERNANDEZ: Your Honor, may we publish this  
12 demonstrative to the jury?

13 THE COURT: Certainly.

14 MR. FERNANDEZ: Thank you.

15 Please proceed.

16 BY MR. FERNANDEZ:

17 Q. And how were you able to detect that encryption?

18 A. TrueCrypt can be a little difficult to detect. But it has  
19 a couple characteristics that, based on my experience, tells me  
20 that it is a TrueCrypt file, an encrypted file.

21 The first is that TrueCrypt, when the actual content of the  
22 data is viewed, it appears as a random jumble of data, which  
23 these all did.

24 Second, by their very nature, TrueCrypt container files,  
25 the logical size of them are divisible by 512, which these

1 were.

2 Third, these files were found in a folder called TrueCrypt  
3 with the TrueCrypt software.

4 And those reason -- for those reasons led me to believe  
5 that they are TrueCrypt container files.

6 Q. And you have the software to be able to find the TrueCrypt  
7 files; is that correct?

8 A. I have a copy of the TrueCrypt software, yes.

9 Q. And were you able to get access to those TrueCrypt files?

10 A. I was not able to access these files, since I do not know  
11 the password.

12 Q. Is there anything that you noticed about these files?

13 A. The -- every single one of the files, which appear to be  
14 copies of each other, were all named "Do not delete."

15 Q. And so we've talked about the thumb drives. Did you detect  
16 any signs of encryption on any of the hard dives?

17 A. I detected encryption on three of the hard dives, which  
18 were device 12, 13, and 14.

19 Q. And what kind of encryption did you detect?

20 A. I was unable to determine what type of encryption it was,  
21 only that it appears to be encrypted. And the reason for that  
22 is that encryption necessarily doesn't have an identifier so  
23 you can tell exactly where it came from. Some do, most don't.

24 These did not have a standard identifier, what we call a  
25 header. And this kind of is one way to identify a file or, in

1 this case, encrypted data.

2 For instance, to step back for a second, if you have a PDF  
3 on your computer, PDFs by their nature all have a standard  
4 identifier to them. It's the first chunk -- the first little  
5 bit of the data in the file tells you that it's a PDF. And  
6 it's a very standard identifier. And so, if you know what the  
7 identifier is, even without knowing that it's a PDF, even if  
8 you took away the .pdf of a file --

9 (Court reporter interruption.)

10 THE WITNESS: I'm sorry.

11 Essentially, the encrypted data does not have an  
12 identifier, but it does appear to be encrypted and I was not  
13 able to access the contents of that encryption.

14 BY MR. FERNANDEZ:

15 Q. So you were able to detect encryption on six files. Let's  
16 talk about what other analysis you did on these documents. Did  
17 you look to whether there were any documents that were  
18 reformatted after April 26th, 2013?

19 A. I identified four devices of the 14 that were reformatted  
20 following Dave Kleiman's death in 2013.

21 Q. And do you remember what devices those were?

22 A. Those were devices 6, 9, 11, and 14.

23 Q. And why does it matter that those devices were reformatted?

24 A. Again, going back to our library example, when we reformat  
25 a device, we are fundamentally changing the contents of that



1 device. We're throwing out the card catalog and we are losing  
2 the pointers, the knowledge of where the data on the drive is  
3 and how it's organized.

4 Q. And how did this reformatting impact your ability to  
5 recover data from these devices?

6 A. It greatly impacts the ability to recover data and it  
7 greatly impacts the examination of that device. Because, like  
8 I said, you don't have the references to know where the  
9 previous data resided on that device.

10 Q. And you testified just now that one of the devices that was  
11 reformatted was number 14; is that right?

12 A. That's right, yes.

13 Q. And that device was also encrypted, as I see here; is that  
14 right?

15 A. That's right. Device 14 was also -- it was fully  
16 encrypted. It wasn't just a single TrueCrypt file. The entire  
17 device appeared to be encrypted.

18 Q. And so how does the combination of encryption and  
19 reformatting impact your ability to recover data from a device?

20 A. The combination of a fully encrypted drive, following  
21 reformatting -- like I said, essentially reformatting  
22 overwrites a part of that drive. You're throwing out the card  
23 catalog.

24 And the way that most full-disk encryption works -- and  
25 TrueCrypt is among these -- is that the first little bit of the

1 drive, the first chunk of the encryption on the drive, holds a  
2 scrambled version of the master key. And when you reformat a  
3 drive, you are overwriting the section that holds that  
4 scrambled bit of the master key. It's essentially damaging the  
5 lock of that encryption. So even if you did have the key,  
6 you're not able to unlock that lock anymore because it's been  
7 damaged.

8 Q. So basically, it's like taking a hammer to a lock and like  
9 hitting it and then trying to fit in a key? Is that a fair way  
10 of describing it?

11 MR. ROCHE: Objection.

12 THE COURT: The objection is sustained.

13 BY MR. FERNANDEZ:

14 Q. Let's talk about other things that you looked at that might  
15 affect data. Did you also look to whether there was any --  
16 there were any operating systems installed in any of the  
17 devices?

18 A. I did. I identified two operating systems as having been  
19 installed on the devices after Dave Kleiman's death in 2013.

20 Q. And which devices were those?

21 A. Devices 10 and 11.

22 Q. And I believe it would -- is it fair to say that it's this  
23 one and this one?

24 A. That's right, yes.

25 Q. And why does it matter that a new operating system was

1 installed on those devices?

2 A. As I described previously, the operating system  
3 installation is a massive change that involves writing  
4 thousands of files onto a device. And adding those files  
5 overwrites sections of the drive such that we're unable to  
6 recover what was there before.

7 Q. And have you read the transcript of Ira Kleiman's testimony  
8 in this case?

9 A. Yes, I have.

10 Q. And is it your conclusion that certain devices had a new  
11 operating system installed consistent with his testimony?

12 A. Yes. That's my understanding.

13 Q. And do you recall his testimony that certain devices were  
14 empty?

15 A. I do recall that testimony, yes.

16 Q. And is it possible that they weren't?

17 A. Absolutely. It's -- as a person sitting in front of a  
18 computer, as a layperson using a computer, you do not see by  
19 the very nature of that all the sorts of data that are hidden  
20 from that user. As a forensic examiner with the tools  
21 available to me, I can see deleted content. I can see  
22 fragmentary data. I can see data from previous file systems  
23 that still reside on the drive. All that is invisible to  
24 someone sitting in front of a computer. So even if the drive  
25 appears to you, when you're looking in front of it, as it's

1 empty, it might not be.

2 Q. And do you recall the testimony of Ira Kleiman where he  
3 said that he added and deleted data from devices?

4 A. I do, yes.

5 Q. Okay. Was there any data added to the devices after April  
6 26th, 2013?

7 A. Yes. I identified data being added to the devices, 13 of  
8 the 14 devices, after Dave's death in 2013.

9 Q. And this is what we call overwriting; is that correct?

10 A. Yes. Writing data to a drive, adding data to a drive,  
11 fundamentally by its nature, takes the place of something on  
12 the drive. It overwrites an area of the drive. It takes the  
13 place -- a position on the bookshelf.

14 Q. And what was the first date that data was added to one of  
15 the devices?

16 A. The earliest that I identified was May 22nd, 2013.

17 Q. How many devices had data added to them?

18 A. It was 13 of the 14.

19 Q. And was data added to each of the thumb drives?

20 A. Yes.

21 Q. And was data added into the various devices in 2014?

22 A. Yes.

23 Q. 2015?

24 A. Yes.

25 Q. 2016?

1 A. Yes.

2 Q. 2017?

3 A. I believe -- let me correct my statement. Maybe not every  
4 device, but data continued to be added to devices in 2014,  
5 2015, 2016.

6 Q. And up through the filing of this case in 2018; is that  
7 right?

8 A. Yes. In fact, I identified data being added to the  
9 devices, 11 of the 14, up until and after October 1st, 2018,  
10 which was I believe the filing of this case.

11 Q. And why does all this matter?

12 A. It matters because all the activities here fundamentally  
13 change the contents of the drive and affect our ability to  
14 forensically examine the drives and recover data from the  
15 drives and see what was there before.

16 Q. And how does this impact your ability to recover data?

17 A. Greatly impacts it.

18 Q. And will we ever be able to know the content of the  
19 information that was lost in these devices?

20 MR. ROCHE: Objection. Calls for speculation.

21 THE COURT: Sustained.

22 BY MR. FERNANDEZ:

23 Q. Is there any way to know what data was on the devices  
24 before they were the subject of being overwritten?

25 MR. ROCHE: Objection. Calls for speculation.

1 THE COURT: Overruled.

2 THE WITNESS: No. There is no way to determine the  
3 content of what was there before. And due to the actions that  
4 I described, to include formatting, installing an operating  
5 system, adding data, which fundamentally changed the contents  
6 of these drives, we weren't able to know what was there before.

7 BY MR. FERNANDEZ:

8 Q. And who was responsible for those actions?

9 A. Ira Kleiman.

10 MR. FERNANDEZ: If I may have a second to consult with  
11 co-counsel, Your Honor.

12 THE COURT: All right.

13 (Pause in proceedings.)

14 MR. FERNANDEZ: Thank you, Your Honor. No further  
15 questions.

16 THE COURT: All right. Cross-examination.

17 CROSS-EXAMINATION

18 BY MR. ROCHE:

19 Q. Good morning, Mr. Chambers. Let's do some rearranging  
20 here.

21 Mr. Chambers, were you here when Dr. Edman testified?

22 A. I was, yes.

23 Q. And you understand that Dr. Edman testified that 10  
24 exhibits that were --

25 MR. FERNANDEZ: Objection, Your Honor. Relevance and